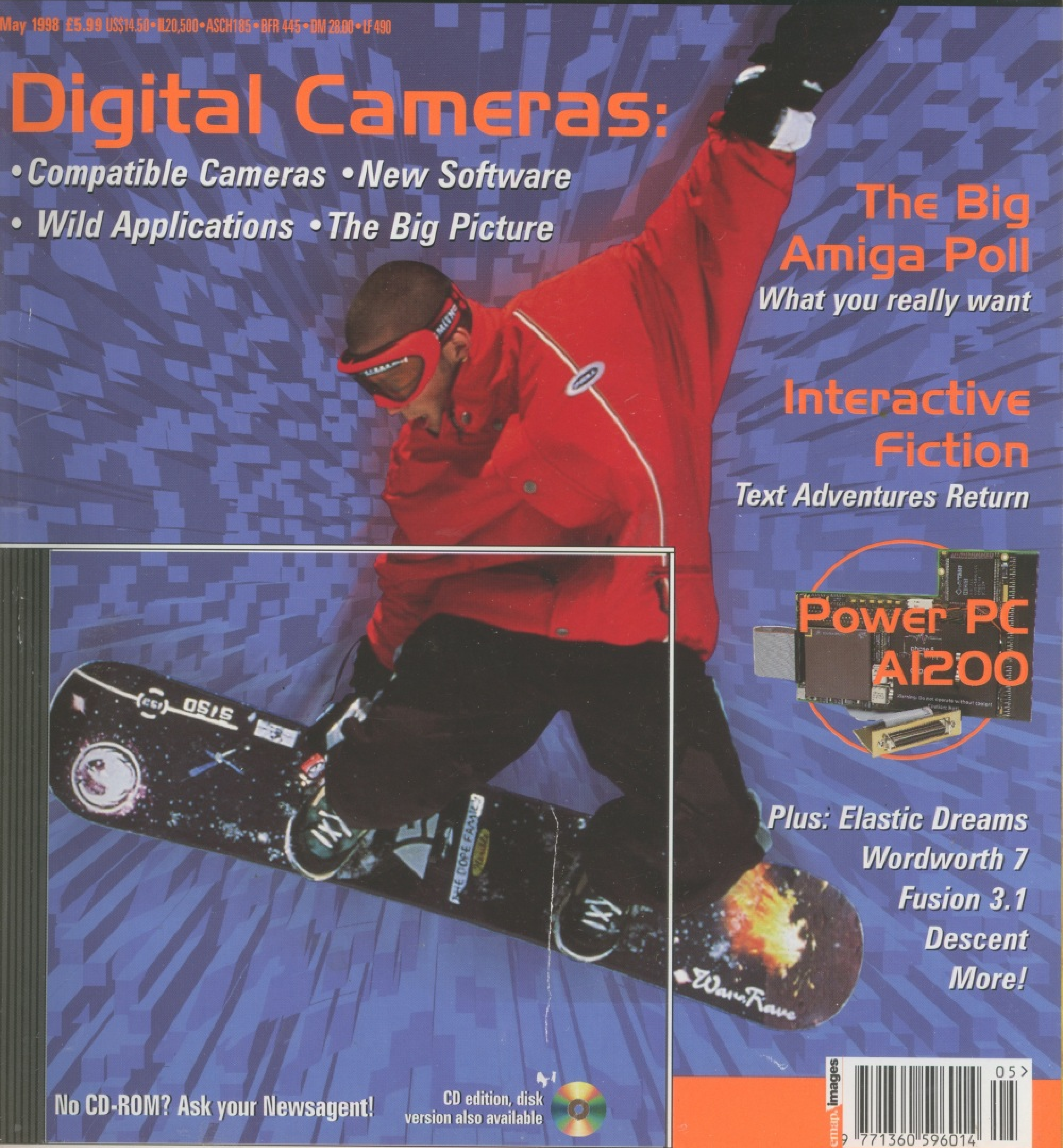
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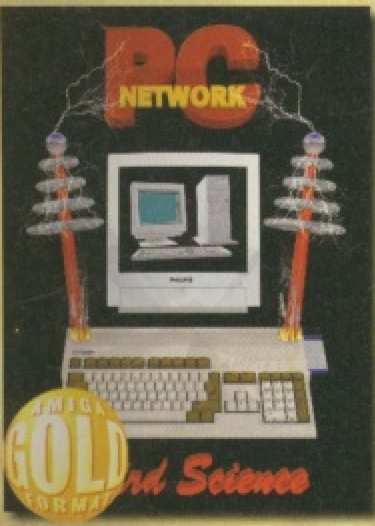
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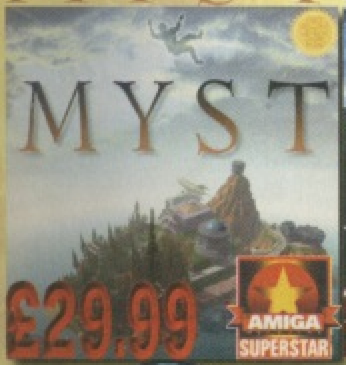
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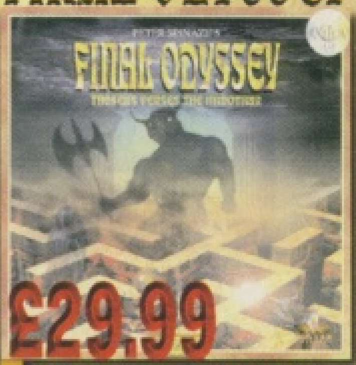
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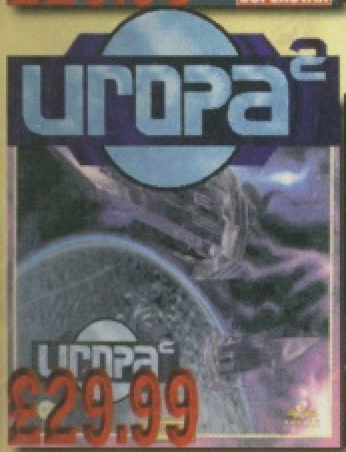


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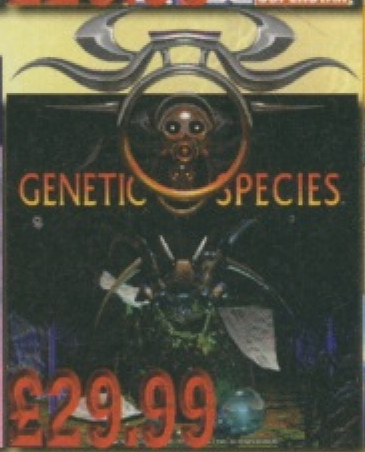
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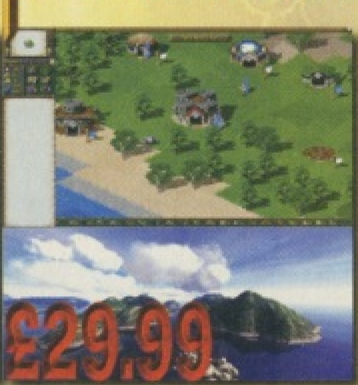


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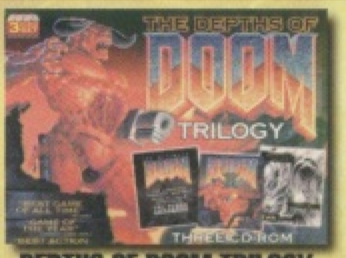
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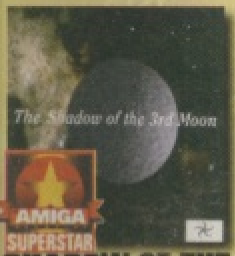
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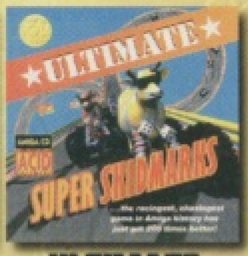
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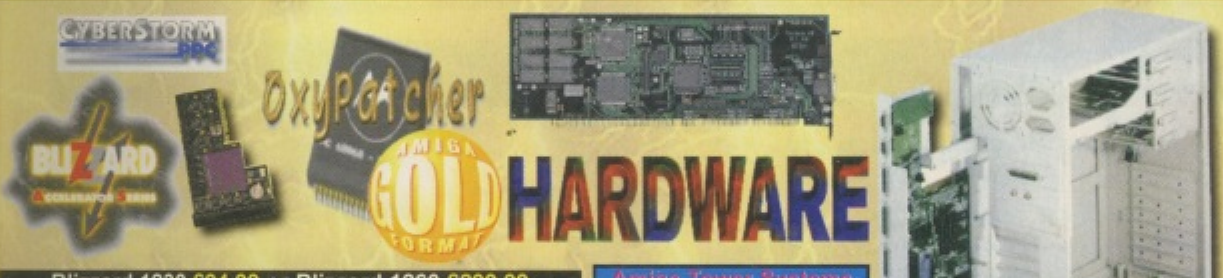


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MAY 1998 • CONTENTS

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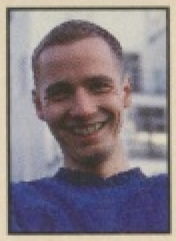
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COVER DISK AND CD-ROM DUPLICATION BY DISKXPRESS

ABC July-December 1997 24,358

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Editorial



If you talk to someone about the state of the Amiga in the next few days and they start getting all moany, complaining that there's nothing out there, no one ever develops software any more, that we may as well all crawl under a stone and wait for the worms to arrive... if they say that, then stick this issue of CU Amiga under their nose and tell them to *wake up and smell the coffee!* Look what we've got: there's loads of Amiga-compatible digital cameras for a start. Then there's the first A1200 PowerPC card, some shiny new PPC software by the way of Elastic Dreams, a new revision of an old favourite in the shape of Wordworth 7 and that's not all. Backing up the best in Amiga reviews and tutorials we've got The Big Amiga Poll and a long overdue focus on Interactive Fiction (that's text adventures to you and me).

Have a good read, and I'll see you at World of Amiga.

Tony Horgan, Editor

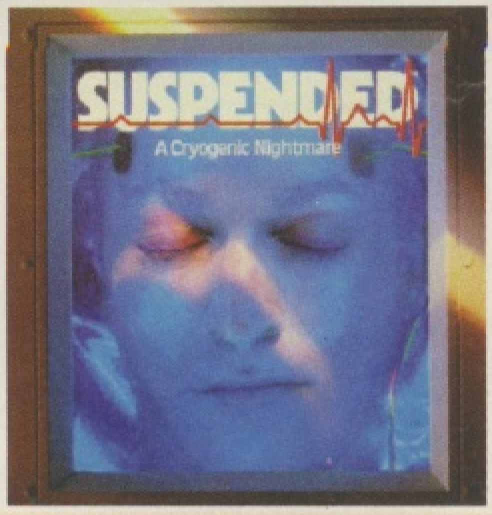
Feature



Digital cameras are getting better, cheaper, and more Amiga-compatible by the day. You can now choose from at least a dozen different cameras, so you're bound to find one that suits your budget and your requirements.

How do they work? Are they any good? Can they rival conventional photography techniques? All these questions and many more are answered, starting on page 24.

Feature



If we said "Text adventures" instead of "Interactive fiction" you'd probably run a mile, but wait! Interactive fiction, as it's now known, has been secretly breeding via underground networks of puzzlers, authors and programmers, and is actually enjoying something of a resurgence.

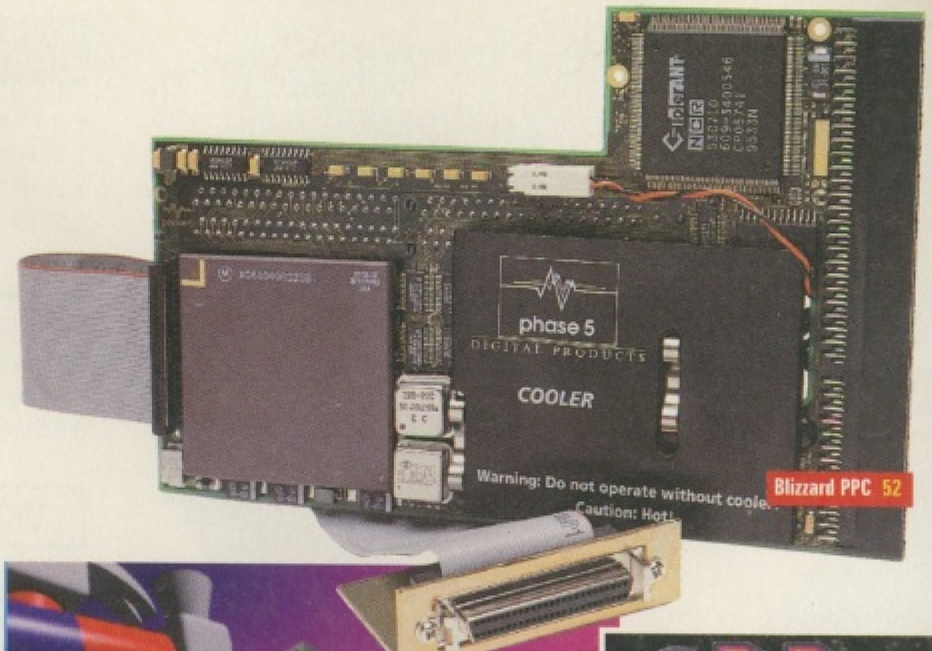
You'll find loads of extremely high quality complete playable text adventures on this month's CD and cover disks so you can find out for yourself. For now, let us bring you up to speed on this unlikely gaming scene.

Feature



Everybody thinks they know exactly what a 'new Amiga' should be, and you can almost guarantee that it is different from the next Amiga fan's vision of the future. Now it's time opinion was polled and all the facts laid bare for everyone to see.

To this end we set up an survey on our web site which asked the big questions. And Tony thought it would be amusing to render a boing ball style pole as well. So he did and thinks it looks really good.



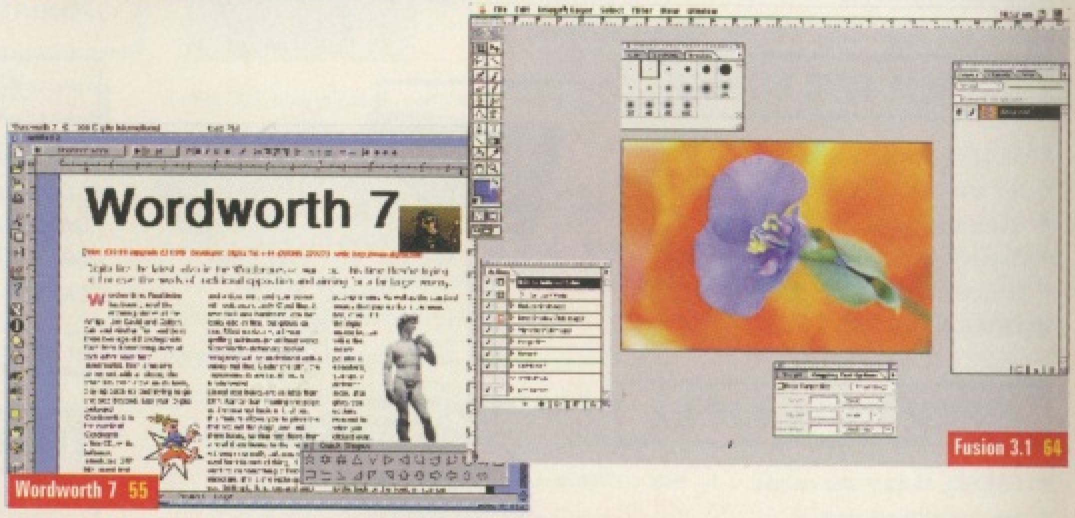
Blizzard PPC 52



Art Gallery 70



Elastic Dreams 62



Wordworth 7 55

Fusion 3.1 64

Cover disks

14 Super CD-ROM 22

Here's the Quake demo! This will let you know exactly what you can expect from the full game. You even get to play around with all the many settings and options. There's another 600Mb or so of the latest software too, including a big interactive fiction section, SBase4Pro, a massive 100Mb of PowerPC software and the best pickings from Aminet too.

18 SBase4Pro

The classic database is yours free, only with this issue of CU Amiga. You'll also find some extra instructions here to go with the collection of enthralling interactive fiction that also adorns this month's cover disks.



The New A1200 Power Tower

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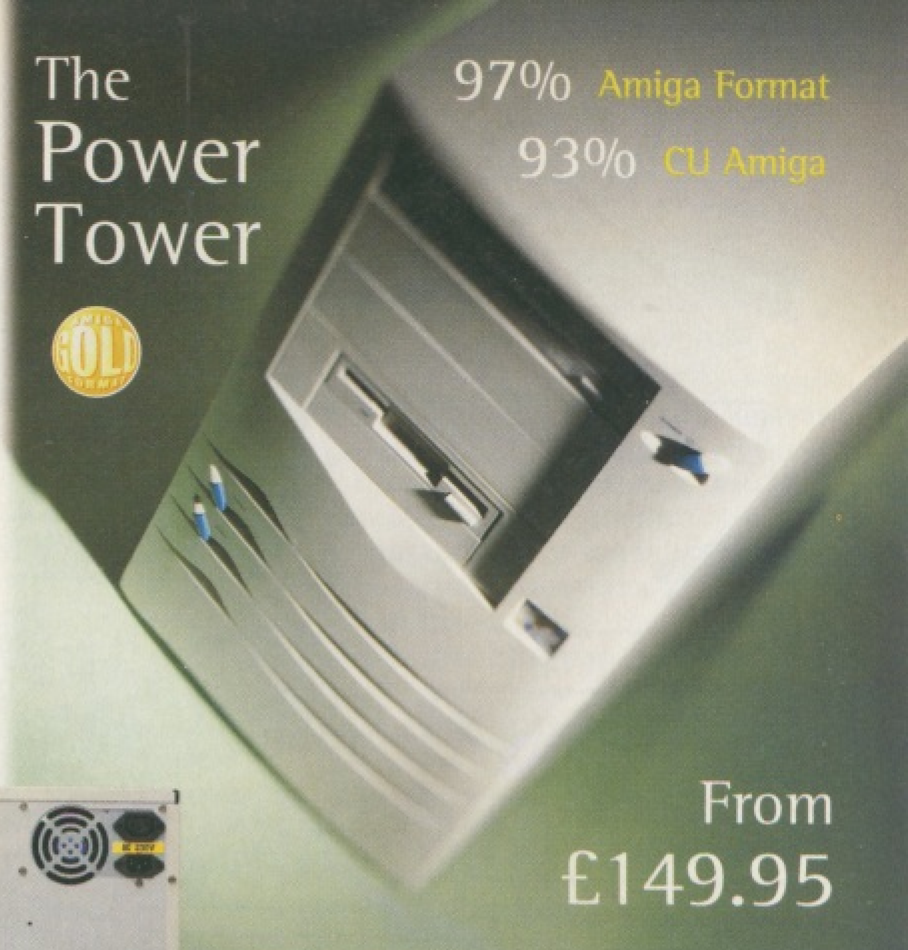
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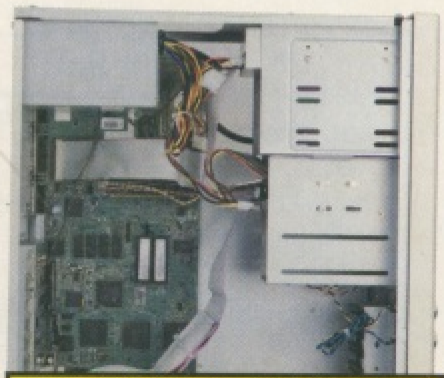


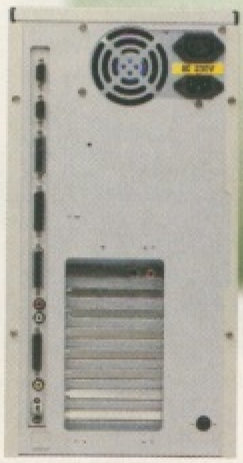


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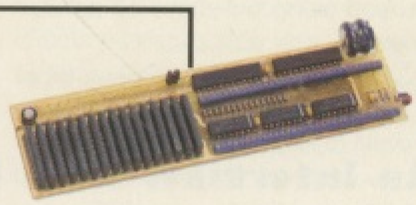


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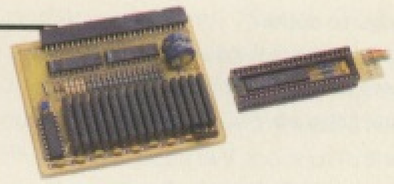
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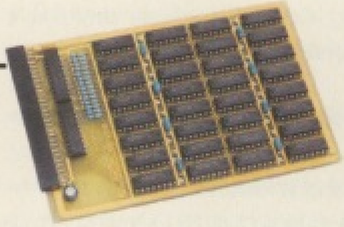
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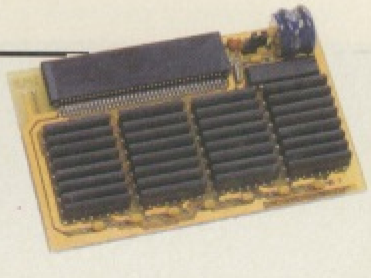
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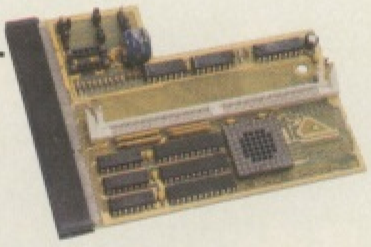
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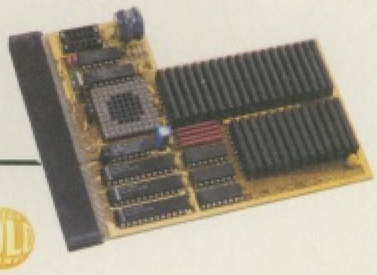
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News

St. Louis Show



In 1997, the St. Louis Amiga users group held a show so close to the Gateway 2000 acquisition of the Amiga you could taste it, yet nobody at the show had any indication that their purchase was less than two weeks away. This year, of course, Amiga Inc. was invited and showed up in full force, which is to say that nearly the entire office came.

This year's St. Louis show was a better organised affair – Bob Scharp, who had previously run the show as the user group's representative, decided to streamline the operation and run the show as a private enterpreneur, giving him full control over the event, which worked to everyone's advantage. It also involved expanding the show a third day, with Friday dedicated to seminars and developer networking. Friday culminated with a private dinner and open bar sponsored by Amiga Inc. who have apparently already learned the quickest route to our hearts. For entertainment, a passable Blues Brothers lip sync team did their schtick on the stage. Escom never bought beer for the US Amiga community, so score one for Amiga Inc.

Saturday and Sunday were the show proper. The exhibitors ran the usual gamut – small or part-time Amiga retail or reseller operations and small development companies, all the way up to big-time Amiga dealers and famous developers like Asimware, Soft-Logik and Newtek. Classes ran throughout the days as well on programming, networking, HTML, and Amiga applications.

Petro, Jeff Schindler (and at times his lovely wife Kim), Joe Torre, and Marilyn Flint were all available for varying levels of congratulations, questioning, and abuse. Joe had his now trademark boing-ball levitator working, and was given a pair of powered boing ball shoes by some admirers.

Saturday night was capped off by an oversold banquet – some paying patrons were moved out to a hotel gathering area for dinner and then invited to the main floor for the speeches. Most important of the

An Interview With Petro Tyschtchenko

CU: We've seen the licensed Micronik Scandoublers. Is this a sign of more things to come?

Petro: Yes, absolutely. There will be a new licensed scandoubler from ACT when Micronik's exclusive period [6 months] runs out. We hope to launch more products like this. The licensed products should undergo full technical testing in the US but so far there have not been the facilities to do this.

CU: How does Amiga Int. function?

Petro: We are entirely funded by sales now, and in fact can afford to transfer some money back to Gateway. Amiga International is inexpensive to operate.

CU: What happens after Amiga International runs out of the old Amiga stock of parts and motherboards?

Petro: We are looking into greater distribution of new products – we already have a good infrastructure which we can use to sell products of companies such as phase5, DCE. We have low overhead and high name value, so this would be very valuable.



CU: Can you characterize the current AI strategy?

Petro: What we are trying to do is to build up the existing distributors – give them some cash reserves, help them earn money. Our products can only be as good as our distribution.

CU: What wold make you happy?

Petro: I would like to see the Amiga renew its success, with a new, agressive product, like the Commodore 64 and the Amiga in 1985. We need good partners to make this happen.

CU: You've been through some difficult times lately. With your experience you don't have to work with the Amiga – why do you still do what you do?

Petro: I joined Commodore in 1982. I've seen a lot of ups and downs. But I like this market, I get a very warm feeling from the people in it. Certain times, like after VIScorp, were rough but I believe in being patient and honest and sticking with it. I also want to make sure that I have a good successor for after I retire.

CU: Any particular memories of Commodore that stick in your mind?

Petro: I remember when Jack Tramiel left the company – he swore he'd kill Commodore. He bought Atari for $1 from Warner Brothers – they were having some difficult times then, it was the video game crash. He brought my old boss, Alvin Stumph over to Atari as well.

Petro Tyschtschenko is head of Amiga International, in Germany.



addresses was from Jeff Schindler, who, aside from generally reassuring the Amiga community, pointed out the realistic possibility that things may get worse before they get better for Amiga developers. He also revealed that OS 3.5 will at least in part draw on existing Amiga software development from third party sources.

Sunday was a more subdued day than Saturday, but every company I talked to (including the one I represented!) did substantially better business at this show than at recent events. People may have become angry at Amiga, Inc for various reasons, but they also came to buy, as well.

Straight from Canada, Asimware showed off AsimCDFS and MasterISO 2, with a greatly expanded list of supported SCSI and ATAPI CD-Rs (and rewritables). It does not yet support the exceedingly rare (and also expensive) 6x drives, but its direct CD copy mode and drop-dead simple interface make it a terrific package. Asim is looking into DVD support for their products in the not too distant future.

Photogenics Ng

Paul Nolan was on hand to show off the Siamese System, as well as Photogenics Ng, which drew considerable ooohs and aaaahhs from onlookers. While the name is not yet written in stone, the new program may be the final word in painting-effects packages, and was impressively fast in 24-bit color.

Just across the aisle from Mr. Nolan was Kermit Woodall of Nova Design, showing off the imminent ImageFX 3, with a totally reworked interface which ditches the old GUI conventions and moves to a more modern, windowed system. IFX 3 also boasts an expanded set of effects, including the ability to use a number of formulas developed for Photoshop.

Newtek return?

NewTek may be flopping back to the Amiga. In a move of considerable generosity, the company gave away at least 100 copies of Lightwave 5.0 for Video Toaster owners. While their booth was fairly low-key, with a few demos running but no huge signs or blinking lights, the representatives there were considerably 'up' when it came to discussing the Amiga, and it seems that Lightwave 5.5 for Amiga is being re-evaluated for development.

MagicBox was present, as was a MagicBox, providing the text displays to announce upcoming show events. The company has put their A1200-based information kiosk all over – in Trump Towers and many locations in Las Vegas, even in the 1997 Superbowl. One snag their business has hit – TCI, the country's largest cable firm, has a firm policy against buying anything with Amiga technology in it!



Sometimes the most interesting developers are tucked away in quiet places – that's where WeemsWare was with their Lips software. Lips uses the narrator.device and an animation (which you can create, or use a stock set) to create realistic mouth movements for dialogue, which you can then dub over for cartooning. It's easy, and fun, and almost ready for commercial release.

Anchoring the show were the retailers, anchored by National Amiga, Compuquick, and Wonder Computers, who decided at the very last minute to attend. Between those three and the smaller retailers present, most anything you could want to buy was on hand, from old peripheral boards to A4000 and A1200 PPC cards, Myst, Micronik towers, and scan doublers. The retail staff generally looked quite busy.

Plans are already underway for Amiga 99, including a move to a better hotel. If the next 12 months are an upward building process for Amiga Inc and the rest of us, I have little doubt that it'll be even better. ■

An Interview Markus Nerding

CU: What is your company's feeling on the PowerPC boards now?
Markus: We need a better PowerPC implementation – that's what my technical staff tells me. It's not easy to do a good job programming for the PowerPC the way it has been implemented on the Amiga right now. For example, the PPC port of ArtEffect was slower than the 68K version. If you need lots of access to the OS, it slows everything down. That's why we've seen relatively few PowerPC programs so far.

CU: What do you suggest?
Markus: A pure PowerPC motherboard. Emulation of the 68K is possible, cheaper, and better for the PPC implementation. We have a 68K emulator ready to use, and it may be possible to even implement it on existing PowerUP cards.

CU: What are the keys to a growing software market on the Amiga?
Markus: A move to C++, with strong development tools. Java could conceivably be very big for the Amiga software market as well.

CU: So where is Merapi, your Amiga Java implementation?
Markus: It's not easy to get it finished – our programmers are in close contact with Sun's engineers but even then it sometimes takes a week to get a question answered – this makes the development process more difficult.

CU: Have Haage and Partner committed to using Java for future products?
Markus: That remains to be seen – first we have to get Merapi out.

CU: Tell us about Tornado3D – where you see it fitting in the 3D market.
Markus: It is definitely targeted at Lightwave. The developer of Tornado is a video professional, so he knows what he needs for his work and knows what a good 3D program should achieve.

CU: Any other products coming through the pipeline we should know about?
Markus: EasyWriter is starting to look more like a real word processor now – we should have a demo in 1-2 months. Also, we are working on a new ARexx interpreter, coded in C++ rather than assembly, for portability. It may have a little "Visual ARexx" to it when combined with StormWizard. There is some speed loss in the new interpreter because of the C++ code although we don't have any benchmarks right now.

CU: Will these have PPC versions?
Markus: Either could be – we will see.

Markus Nerding is general manager of Haage & Partners.

An Interview With Jeff Schindler

CU: Where are we now, in your eyes?
Jeff: We are still in the valley, definitely. But Microsoft doesn't dominate the future, and we need to exploit the areas of the market that we can tap without jeopardizing our future plans.

I'm very encouraged by the fact that in our contacts with high-tech firms we almost always find a few strong Amiga people. You have to understand that even now we're still finding new things in boxes acquired in the Amiga purchase, and deciding what software revision is relevant and what is unimportant is a very tricky process.

CU: Amiga Inc's approach to development (focusing on software, encouraging others to build the hardware) has a Microsoft flavour to it. Is this because of Gateway's experience on the other side?
Jeff: No, I think it's because this is the strategy that makes sense for the Amiga at this time. We need third party developments and products and to incorporate their technology as our own, not to ditch all of those good things and simply slap a "Gateway Amiga" sticker on everything. So we're focused on future technology and licensing.

CU: Has there been any movement on getting the Rom Kernal Manuals, crucial developer docs, republished?
Jeff: We have some legal people looking into it but nothing has happened yet.

CU: Honestly, can you say that Gateway knew what they were getting into when they bought the Amiga last year?
Jeff: No, they weren't really aware of what they were getting into. We didn't just buy technology, although that's what they saw at first. We bought into a group of people.

Jeff Schindler is head of Amiga Inc. in the US.

phase5 announces first PPC Amiga Clone

Last month, phase5 implied that there was a "logical" next step for them to take with their high-end CPU and graphics chip development on the Amiga. This month, they made their intentions clear, announcing the pre/box, an AmigaOS computer which will operate on four PowerPC chips as well as a 68000-series CPU. Whether that CPU will be on the motherboard or emulated on the PowerPCs is as yet undetermined.

Because of the relatively low prices of PowerPC CPUs and phase5's commitment to multi-processing, the company believes they can offer attractive price/performance ratios compared to the PC market. The systems will not be targeted at the lower end of the market, but will focus on medium to high end users – power users, professionals, and serious gamers.

There is no indication that AGA will be present on the new pre/boxes – instead, an 8 MB high-speed PCI bus graphics chip will provide high-resolution display through CyberGraphX. The only AmigaOS machine to ever ship without an Amiga graphics chipset was the Draco, which also employed CyberGraphX.

For expansion, phase5 plans to ship with SCSI, EIDE, serial, parallel, and USB as standard. Three PCI slots will be available for add-on boards, and it is anticipated that drivers will be written to support the most common (ethernet, etc.), and it is entirely possible that more custom boards, such as video editing cards, could find software support on the new machine. Memory expansion will be through fast SDRAM, and a special slot for a Voodoo2 3D add-on board included.

Based on current pricing and projections, phase5 expects an entry-level machine (a quad-PPC 604e/200) to sell for £1495. At the other end of the spectrum is a quad-G3 (PPC 750)/300, for £3395.

Amiga Pyromania





Leading Hollywood visual effects company VCE have announced the release of Pyromania Classics, a visual effects compilation for the Amiga 4000 and Video Toaster.

The compilation CD contains over 30 visual effects sequences including explosions, fire, smoke and shockwaves for use with your own productions.

Individual sequence files are also included for use in applications such as ImageFX, Photogenics or Toasterpaint.

For more details contact VCE at http://www.vce.com or call: +1 800 242 9627.

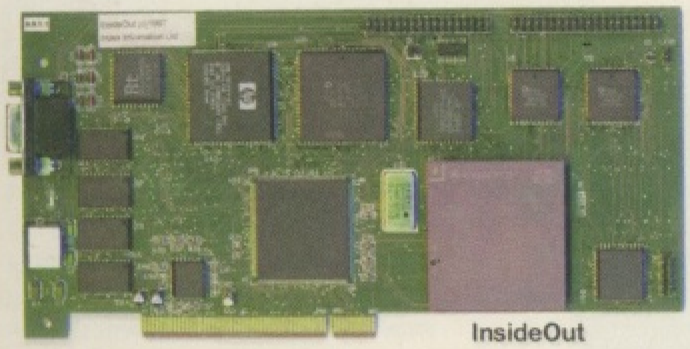
Inside Out needs You!

Siamese Systems, the company formed by Paul Nolan and Index Information's Mike Tinker, have unveiled a novel plan to encourage advance sales of the Inside Out.

Concerned that demand for the card, which turns any PCI-based computer into a fully functioning 040 or 060-based Amiga might not be sufficient to justify the large sums of money required for development and production, the company has announced a deposit scheme, whereby purchasers can save money off the intended £399 selling price, depending on how much they pay up-front.

In short, a deposit of £25 will bring the total price down to £375, while £50 lowers it to £350 and £100 down brings the price down to just £325. The selling price does not include a processor, which can be either a 33MHz 040 or a 66MHz 060.

Paul Nolan from Siamese said: "As you can see, it is worth paying the deposit and as long as we meet a target of 500 boards we will invest the money needed into the Siamese PCI Amiga board. This may seem like an extraordinary way to develop a product but the software is 80% complete and the hardware is 60% complete. However, the development cost is too high when the Amiga buying public have become so lethargic about paying for new Amiga products and at the same time complain about the lack of development".



InsideOut

The InsideOut card promises to be the fastest 68K-based computers ever designed, as all I/O, graphics display, sound etc. are handled by the host machine, while the bandwidth flow across a PCI bus is around 10 times faster than Zorro 3. InsideOut contains a full AGA chipset, meaning that the vast majority of existing games and software will be able to run on a system fitted with it.

An additional video output socket on the board will ensure existing genlocks are compatible, opening up the possibility of using a system fitted with the card as a low cost analogue/digital hybrid video system, something which Siamese have heralded as yet another first for the Amiga.

Users who places orders for the card will be required to settle the balance once the board has been manufactured, which is expected to be around 3-4 months after a decision is made on whether to go ahead with the project.

Readers of our March issue will also know that one of the main intentions behind the card is to provide users of the Siamese PCI with the ability to run the Mac OS and software, as the card will be fully capable of emulating a 68K Mac, using one of the existing Amiga emulator programs. For further information pay a visit to the Siamese Systems web site at: http://www.siamese.co.uk.

News in Brief

IBrowse frenzy crashes Demon – twice!

Following the release of the latest upgrade to the IBrowse web browser, Hisoft were forced to take down their entire web site when a flood of hits by users in search of a download crashed Demon Internet twice in the first few hours.

Demon claimed that the problem was due to the heavy use of CGI scripts in the site design, and Hisoft have withdrawn their site to prevent further system outages.

While the rest of the site is redesigned, you can still download the free upgrade to IBrowse 1.2 from http://www.hisoft.co.uk

Descent gets CV3D

Development on the Amiga conversion of PC game Descent has taken a new turn with the release of a beta release of the game with support for the Virge 3D chipset used in the Cybervision 64/3D. Although the S3 Virge is a primitive chipset by the latest 3D standards, this marks a historic first ever Amiga game with hardware 3D acceleration.

The current beta release archive can be downloaded from the Amiga Descent web page at http://www.informatik.uni-trier.de/CIP/tfrieden/

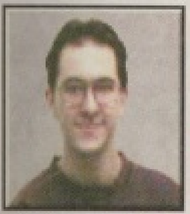
AMIGA means what?

Imaginet Design Solutions, a South Florida-based electronic commerce consulting firm and their partner, Bell South Telecommunications, have announced the launch of the Americas Information Gateway, an Internet-based information resource gateway to be known by the abbreviated name of AMIGA.

Of course, a certain US computer manufacturer we know well may have something to say in the near future about the use of the name Amiga to brand an internet initiative.

Norwegian Mag

Michal Bergseth, editor of Norweigen small-press magazine Amiga Posten is looking to expand his title. If anyone (preferably Norweigen speakers!) wants to help out, or just buy a copy, they can email him at the address michal@newmedia.no.



Stateside News

by Jason Compton: Editor in Chief of Amiga Report Magazine

Newtek Does it Again?

Newtek, notable for developing the Video Toaster, Flyer, and Lightwave, and more recently for having an unclear and mercurial policy towards Amiga development, seems to have changed their minds once again – about the Amiga, and also about their management.

Dwight Parscale, Newtek CEO, has been replaced on an interim basis by founder and former CEO Tim Jenison, who stepped out of the role a couple of years back in favour of Parscale, a lawyer who helped Newtek's formation and legal development. While rumours of "outing the anti-Amiga personnel" seem to be exaggerated, this news roughly coincides with a re-opening of the Amiga Lightwave issue at Newtek.

Newtek halted Amiga development of Lightwave with version 5.0 (other Lightwave platforms are presently on V5.5). However, a re-evaluation of the Amiga market seems to be taking place. No formal announcements by Newtek have yet been made, but the growing popularity of the phase5 PowerPC technology, along with the conversion of SAS/C, Lightwave's compiler, to the PPC system may bode well for Lightwave's future on the Amiga.

ImageFX Plugin Goes Commercial

PanCanvas, a plugin for ImageFX 2.6 and above that allows the user to simulate "documentary-style" camera effects on a still image, has been licensed by Legacy Maker Inc. and is now being offered as a commercial product.

The program takes a large single image in the ImageFX buffer and pans across a predefined path to generate an animation. This effect is commonly used in documentary and news footage, to zoom in or out on a photograph or document.

PanCanvas sells for roughly £25. Ordering information is available from +773-465-5158 voice, or www.xnet.com/~jcompton/legacy-maker.html.

REBOL for Real?

Just when it seemed like Amiga Legend Carl Sassenrath's REBOL initiative was dormant and slowly passing into history, it appears that the project may be headed for a new level of legitimacy.

The language of REBOL Technologies' first press release is very similar to that of earlier REBOL news – promising a revolution in the way people interact with computers and computers interact with the Internet. It is also of the most extreme degree of start-up: there is indication of one employee other than Sassenrath, but the rest of the necessary corporate posts remain unfilled.

For more information, contact the company at +707-485-5803 (fax) or www.rebol.com online.

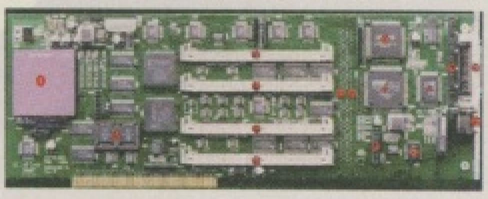


DKB reduces operations

Amiga hardware pioneer DKB have cut back their operations and development in response to lagging demand for their products.

The Michigan-based company was one of the first to ship hardware add-on boards for the original Amiga computers, and may well be the longest running Amiga development company in existence. But their product line fell behind the times and the pace of hardware development, these days primarily set in Germany, they never shipped their planned graphics board, had only one 060 accelerator (The Wildfire, for A2000s), and no new products in quite some time.

As such, the company has been relegated to back-burner status while its primary employees pursue other business ventures. Mr. Hardware has been contracted to provide front-line sales and service of the remaining stock and existing customer base of DKB products. For more information, contact Mr. Hardware at 516-234-8110, or www.li.net/~hardware online.



▲ A DKB Wildfire Accelerator.

Super CD-ROM 22



Welcome to CUCD22. This CD is crammed full of programs, games, utilities, mods and a host of other goodies. If you don't yet have a CD drive, this is your reason to buy one. Prices have never been lower and 650Mb of quality software each month is just too good to miss out on.

How much of what?

It's easy to miss where the real contents of a CUCD lies so here's a list of how much data lies in each directory. Headlining the CD is the SBase4 (see page 18 for a walkthrough guide). Apart from that there's more than enough to keep anyone going until next month, whether its graphics, offline web browsing, music, programming or tinkering with the many utilities and tools to be found on the disc. Of particular note this month is the compendious PowerPC archive.

- PowerPC 97Mb
- Quake 15Mb
- Superbase 2Mb
- CDSupport 66Mb
- System files 12Mb
- CDROM 17Mb
- Demos 13Mb
- Graphics 121Mb
- Information 2Mb
- Magazine 55Mb
- Online 48Mb
- Programming 4Mb
- Readers 36Mb
- Sound 27Mb
- Utilities 32Mb
- WWW 28Mb

Making the most of CUCD22

All CUCDs are designed to be used whether you boot from the CD or your normal Workbench. If you boot from the CD, everything is setup and ready to go. If you want to access the CD from your Workbench, you should first run InitCD. This sets up various assigns and paths needed by programs on the CD, so if you don't do it, things won't work. It doesn't make any changes to your system, or write any files to your hard drive, all changes are temporary and can be reversed by running InitCD again.

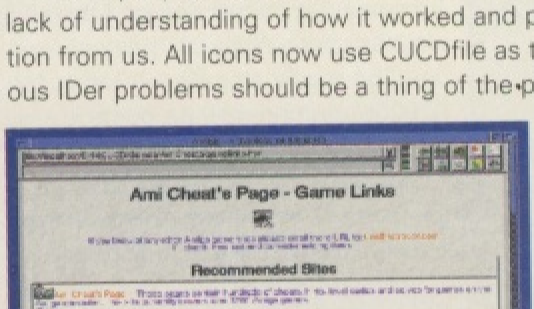
Your own custom CD

In the past you had to use whatever file viewers we set up on the CD. since these had to work with all Amigas they were quite limited. From CUCD12 we decided to allow you to specify how the CD should work on your Amiga and included CDPrefs in the CDSupport drawer. If you have never run this before you should be asked if you want to when you run InitCD. CDPrefs lets you specify which program you want to use to handle each type of file, graphics card users can view pictures in full 24 bit colour, ProjectXG users can listen to midi files through their midi card and people with sound cards can listen to mods with an AHI module player. It also means we were able to provided different defaults for Workbench 2.x users. Once you have run CDPrefs, your setting will be saved to your hard drive and will be used every time you use this CD or any other CUCD.



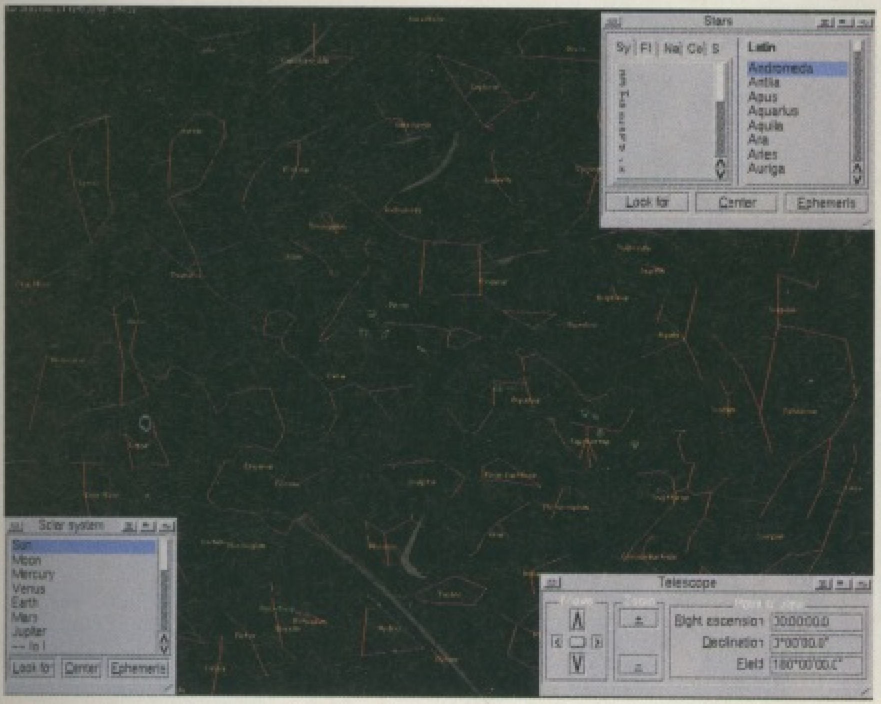
▲ **3D Objects galore...**

Some people had problems with the original use of IDer, partly through a lack of understanding of how it worked and partly through a lack of explanation from us. All icons now use CUCDfile as their default tool, and the previous IDer problems should be a thing of the past. InitCD now copies CUCDfile and it's configuration to your hard drive, if it's not already there. This means that files copied from the CD will now work without needing the CD present. You will almost certainly need to run CUCDprefs to set it up to use your own viewers, but you should do that anyway as it will result in faster access. If you do have any problems, make sure you have run InitCD, at least once.



▲ **When all else fails, cheat with a pile of game tips.**

Highlights of CU Amiga Super CD 22



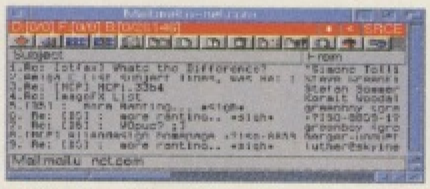
▲ Have you ever wanted to know what that star outside your window might be? Well now you can find out with Digital Almanac.



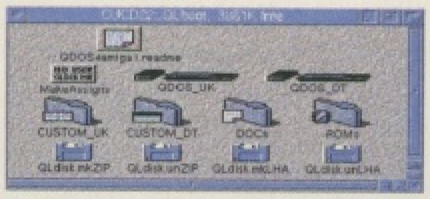
▲ Now everybody can have a rubber face with the PPC-ready Elastic Dreams photo manipulation demo.



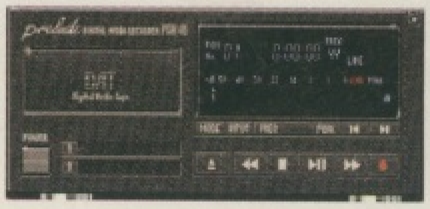
▲ Push your Prelude sound card to the limit with a demo of the new sample editor Samplitude.



▲ Send email from DOpus.



▲ Historic computing – the QDos Emulator.



▲ Prelude compatible sample player/recorder.

PowerPC/Graphics/ElasticDreams

This is a demo of a very slick looking image manipulation program. Although it's in the PowerPC drawer, it works very nicely with a 68K CPU.

Now, if only someone would lend me a PPC card to check out the difference...

CUCD/Games/AmiCheats

This is one of three collections of game cheats on this month's CD.

Between them you should be able to find a solution to just about anything.

CUCD/Online/POP3module

At last the Amiga has a program to browse through a POP3 mailbox.

This incredibly useful utility shows the contents of your mailbox in a standard Directory Opus lister. Not only does it let you dispatch spam to oblivion at the click of a button, it even has configurable spam recognition and auto-deletion.

CUCD/Sound/Samplitude

This is a demo of a useful looking sample editing program. From the makes of the Prelude sound card, it works with standard audio hardware too.

CUCD/Sound/TapeDeck

Another Prelude special, this one uses the Prelude card to record and play back samples, using a standard tape recorder style interface.

CUCD/Utilities/Digital Almanac

Digital Almanac is an astronomy program with loads of options. Even if you're not into astronomy, it's worth looking at for curiosity.

CUCD/Utilities/QDOS

Sinclair QL owners are possibly more fanatical about their machines than Amiga owners. Now be both with this Sinclair QL emulator.

Making things work

Wherever possible, we have tried to make software work straight from the CD, this isn't always possible for a number of reasons. Some programs need to be installed to your hard drive to work, often requiring specific system files. These files are usually on the CD so running InitCD often helps here.

Most software contains a list of system requirements in the documentation, and some will not run unless you have the required processor, memory operating system version or chipset. Some programs, particularly demos and games are written in an OS illegal way. This can means they only work on specific machine specifications, sometimes the readme states this, but not always.

Many demos are intended to be run for a shell, the icons we add simply start them from a script. In some cases this will not work, especially demos that need a lot of ChipRAM.

In this case you will need to boot without startup-sequence and run the program from the shell. Your Workbench manual should explain how to do this.

What's on this month's CU Amiga CD?



PowerPC:
There has been an explosion in the amount of Power PC software available recently, and this looks likely to continue now that A1200 PowerPC accelerators are available. This directory contains a wide range of programs and utilities for using and programming PowerPC. Many of the programs here also work without PowerPC so everyone should look in here.

Quake:
This contains QuakePlayer and a game file. QuakePlayer is more than a slideshow type demo, it actually plays the game the same as the full version, but without user interaction. This means you can see just how well Quake will run on your own setup.

Superbase:
Superbase personal is a powerful, yet easy to use, database. See the coverdisk pages for some more information.

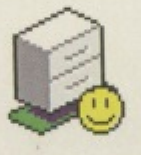
CDSupport:
This contains various support files, such as mod players, anim players, GMPlay, MUI, ClassAct. Most importantly, this is where the CDPrefs program lives. With this you can customise your CUCD to launch your choice of program for each type of file. Two other notable icons in here are Docs.guide; with links to all the program documentation files on the CD, and Index; run Index, type in the name of a program, or part of it, and it will search the contents of the CD for you. You can either search the current CD or the index files of all CUCDs since number 4.

CDSupport also contains icons to start ProNET in various configurations, ready to use when linking a CDTV or CD32 to another Amiga.

CUCD:
The CUCD drawer contains most of the CD contents, here is a selection of what each drawer holds.



CD-ROM: We have the latest demo versions of MasterISO and MakeCD, the most popular CD creation programs for the Amiga. As always there is an installer for AmiCDFS, a much better filing system than the one supplied with Workbench 3.1



Demos: Another substantial selection of demos this month. Over 45Mb of audio-visual extravaganza for your entertainment and delight!



Games: Quiet month demo-wise, but there's still goodies here for demo fans.



Graphics: A huge selection in Graphics this month, with some impressive anims, plenty of icons and backdrops, a large number of 3D objects in Imagine, Lightwave, Cinema4D and Reflections formats.

There is also a scanner driver for Artec scanners, a new version of the RayStorm 3D renderer and a collection of DEM files for use with the recent VistaPro giveaway.

Disk doesn't load?

If your CD does not load contact DiskXpress on 01451 810788. If they advise that the CD is faulty send it along with a SAE to: CU Amiga Magazine Disk Returns, DiskXpress, 7 Willow Court, Bourton Industrial Park, Bourton on the water, Gloucestershire GL54 2HQ.

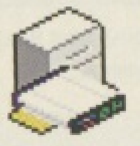
Please note that some CDs will not autoboot on systems other than CD32s, so try loading it from Workbench first. CUCDs will work with almost all Amiga configurations and filesystems. However, we recommend older CD filesystems be replaced where possible. A non-working program is *not* an indication of a faulty CD!



Information: This drawer contains various Amiga information resources, including the online FAQ (Frequently Asked questions) from comp.sys.amiga.introduction and guides to various system files and software.



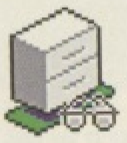
Magazine: Here are all the support files for the C Tutorial. The software reviewed in the Internet PD pages is all on here, as is a massive collection of files to go with the IF feature. There are also some AIRLink codesets and the files mentioned in the Pace modem review.



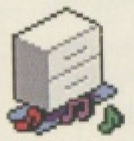
Online: We have the usual selection of Internet and Fidonet postings, plus archives of the last month's discussions on the CU Amiga mailing list. Other utilities include online decoder modules for AWeb 3.1, various web page creation tools and the brand new Miami 3.



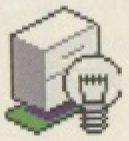
Programming: There's not much in here this month, but look in the PowerPC drawer for other programming resources, including the new version of vbcc, a freely distributable C compiler that works with 68K and PowerPC Amigas.



Readers: Another collection of utilities, games, anims and modules created by yourselves. Keep them coming.



Sound: A good collection of modules, covering a wider range of musical styles than usual. There are demo versions of Samplitude and Wrench and an AHI based mpeg audio player with GUI.



Utilities: Another diverse collection of incredibly useful utility programs, including a print spooler, updated SCSI drivers for Oktagon cards virus checkers updates and much, much more.



WWW: Another selection of Amiga related web sites. Naturally this includes CU Amiga Online.

Order by Access/Visa/Delta/Switch/P.Order/Cheque. 2% Surcharge on Access/Visa (not debit cards). All prices fully inclusive of VAT. Postage and Packing £7.00 + VAT (24 Hour) and £15.00 + VAT (Saturday). Prices and specifications may change without notice. Please telephone to confirm pricing/specification/availability before ordering. E&OE. All trademarks acknowledged. Goods not sold on a trial basis. All orders subject to our terms and conditions of trading, available on request.

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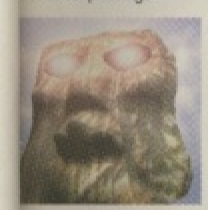
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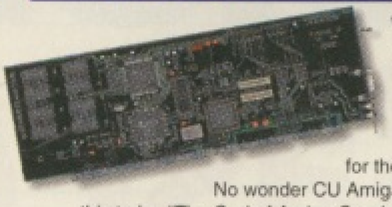
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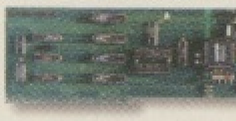
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COVER DISKS

SBase4Pro



One of the best database packages the Amiga has ever seen has finally made it into your hands! SBase4Pro can be as simple or complex as you make it. Either way it's bound to make your life easier!

Loading instructions

To install SBase and the Interactive Fiction games on your hard drive from this month's cover disk, first boot up Workbench and then insert cover disk 181. Open the disk and you will see two icons. The first is named 'Drag_Me_To_HD_and_Click'. If you do just this – drag it to the hard drive partition of your choice and double click it – SBase4 will be installed there. Do the same for the other icon 'Games_Drag_Me_Too' to install the games.

Simple, isn't it? While installing the games, you'll be prompted to insert the other disk, disk 182. Everything will be fine, if you do this when asked. When the installation is finished, you may start SBase by double-clicking on the SBasePro-RT icon. Further information on the use of SBase can be found later on this page. Instructions for loading and playing the IF games are given opposite.

A beginner's guide to SBase 4

Despite its age and its rather primitive-looking interface, SBase 4 is an immensely powerful relational database system for the Amiga. A complete guide to this program would occupy several hundred pages, so what follows is merely a brief introduction; there is simply no substitute for obtaining a copy of the manual.

The two principal interface components of SBase are its worksheet – the main window used to enter and view records – and the browsing controls – a set of tools, like the controls of a VCR, used for scanning through records (see box).

However, before manipulating records, you must create a record scheme, ie; a definition of the characteristics of each field in the record. Next you must create at least one index for that record. Indexes are used in two ways: to provide a quick method of looking up individual records, and to provide a sequence for the presentation of records.

An example

We will now use a small example as a tutorial. Suppose that you run an Amiga club and wish to keep a database of your member's details (perhaps a dull example, I know). What data would you need to store, and how would you need to access this data? (It is always best to think about the uses to which a database will be put before actually creating it.) Our example file will contain each member's full name, address, the type of Amiga they own, and their membership number. This membership number will uniquely identify any particular member.

Creating the example file

Select New>>File from the Project menu, and enter the filename "Members" into the file requester. What SBase calls a 'file', ie; a particular record scheme, its indexes and record data, SBase actually maintains in several physical files all with the same filename root. When manipulating files with SBase, it is only necessary to use this root – which in our example is "Members". Next, SBase asks you to enter passwords, if required. We will not bother with any for our example, so just click 'OK'. However, there are three levels of password protection. The first level, Delete, gives full access including delete permission. The second level gives read/write access only: users may update records, but not delete any or the file itself. The third level allows read only access: users may only view records.

The file definition requester, which is used to create the record scheme, now pops up. In this example, each record will hold the details of one member. The first field of each record will hold the unique number of that member, and we will ensure its uniqueness by getting SBase to assign this number itself using the built-in function 'SER'.

Figure. 1

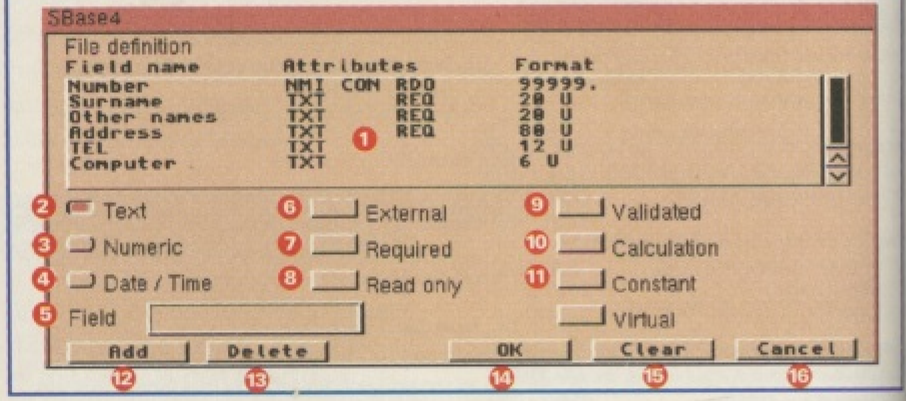
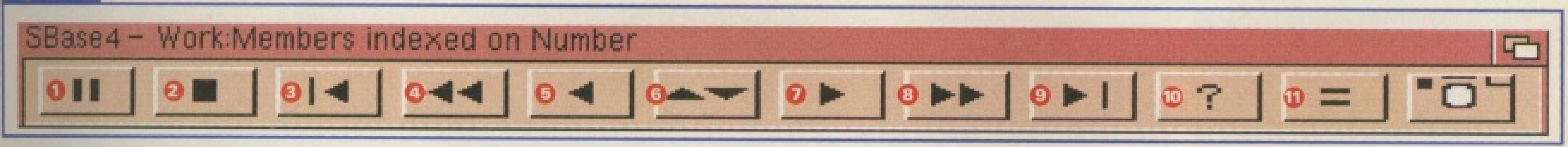
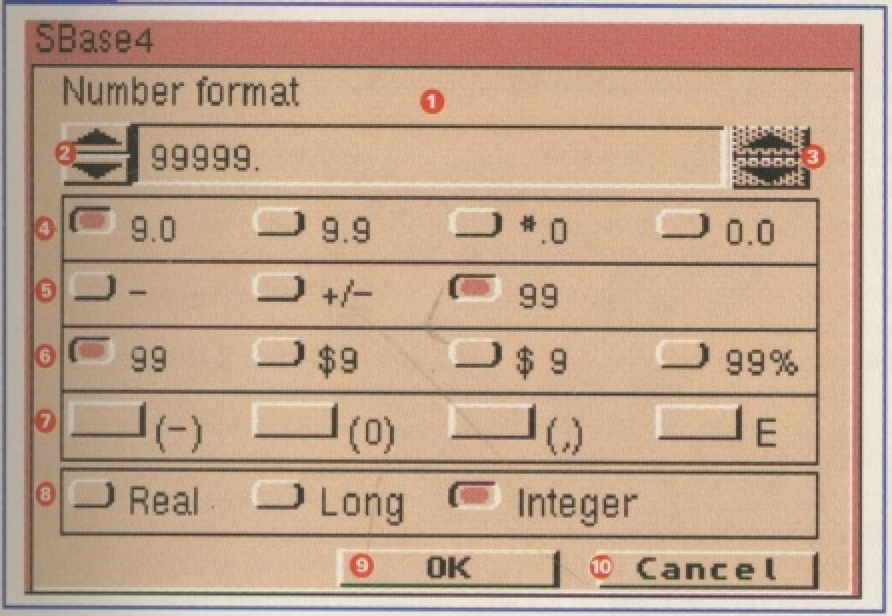


Figure. 2



Enter the field name 'Number' into the 'Field' gadget of the file definition requester, select the 'Numeric'

Figure. 3



type and up pops the number format requester. Here, set the number format (see box) to integer and 99999, and click 'OK'. Now select 'Constant', type 'SER("Members")' into the string gadget of the requester which appears, and click 'OK'. Select 'Read only' when returned to the file definition requester, because, as SBase assigns the number to each member, we do not want it to be modified later. This is the definition of the number field complete, so click 'Add' to add this to the record. SBase will then clear the requester ready for you to define a new field.

Our next field will be for the member's surname. So, enter 'Surname' into the 'Field' gadget of the file definition requester, select the 'Text' gadget and set the text format (see box) to length 20 and 'Upper case'. Select 'Required' (this requires that some data must be entered into this field) and click 'Add'. You should be getting the hang of things by now, so repeat this to create some more text fields: one called "Other names" and of length 20, one called 'Address' of length 80, one called "TEL" of length 12, and the last called Computer of length 6. When all the fields have been defined, click 'OK' to accept the definitions.

If you make a mistake with your file definition, you may modify it by selecting Modify>>File from the Project menu. This pops up the file definition requester again and you can click on the field you wish to modify in the listview gadget. Once you have begun to enter data into the records, there are certain restrictions on how drastically the record structure may be modified.

The next stage is to create the index(es). We want to be able to access and scan the file by membership number and surname. So, first, select the field Number from the list gadget, then click 'Unique Index' and 'OK'. This instructs SBase to disallow attempts to create two records with the same value for Number. For the other index, select Surname from the list gadget (note that this is not unique since many people have the same surname) and click 'OK'. Then just click 'OK' to finish and SBase will create the index files.

Entering and editing data

A database is useless without any data, so that is what we will attend to next: entering data. To create a new, blank record, select 'New' from the 'Record' menu. You will be presented with a column of fields on the main worksheet of SBase, and, hopefully, if all went to plan, the field Number should have the value '1' opposite it and there should be a flashing cursor opposite Surname.

This shows that SBase is waiting for your input. For our example, when we create a new record, we are in fact adding a new member. So let's add a new member. Enter "bloggs" opposite Surname and press return. The flashing cursor should now be positioned opposite the Other names field. Here, enter "joe", press return, then enter "1 Nowhere Street, Anytown" for the address, "09999 888888" for TEL, and "1200" for Computer, remembering to press return after each.

Note that the data you enter in lower case is converted to upper case. After you finish entering the final field, you will be presented a requester asking whether you wish to save this record. Select 'OK' if the

File definition requester

Figure. 1

1. Field list: shows fields and attributes already defined.
2,3,4. Field type: the three basic types are Text / Logical, Numeric, Date/Time. Clicking one of these will pop up a type format requester.
5. Field name: each field name in a file must be unique.
6. External: text contains file name of an external file.
7. Required: field must contain data.
8. Read only: field cannot be modified.
9. Validated: field data must meet validtion requirements. Pops up requester to specify validation formula.
10. Calculation: field contains a derived value.
11. Constant: field specified by constant formula.
12. Add: add new field to record.
13. Delete: delete field.
14. OK: exit and save file definition.
15. Clear: clears field box.
16. Cancel: exit but do not save file definition.

Browsing controls

Figure 2

Tool	Key
1. Pause.	SPACE
2. Stop.	CTRL+C
3. First record.	SHIFT+LEFT
4. Rewind.	SHIFT+UP
5. Previous record.	LEFT
6. Current record.	UP or DOWN
7. Next record.	RIGHT
8. Forward	SHIFT+DOWN
9. Last record.	SHIFT+RIGHT
10. Key search.	?
11. Filter on/off.	=

Number format requester

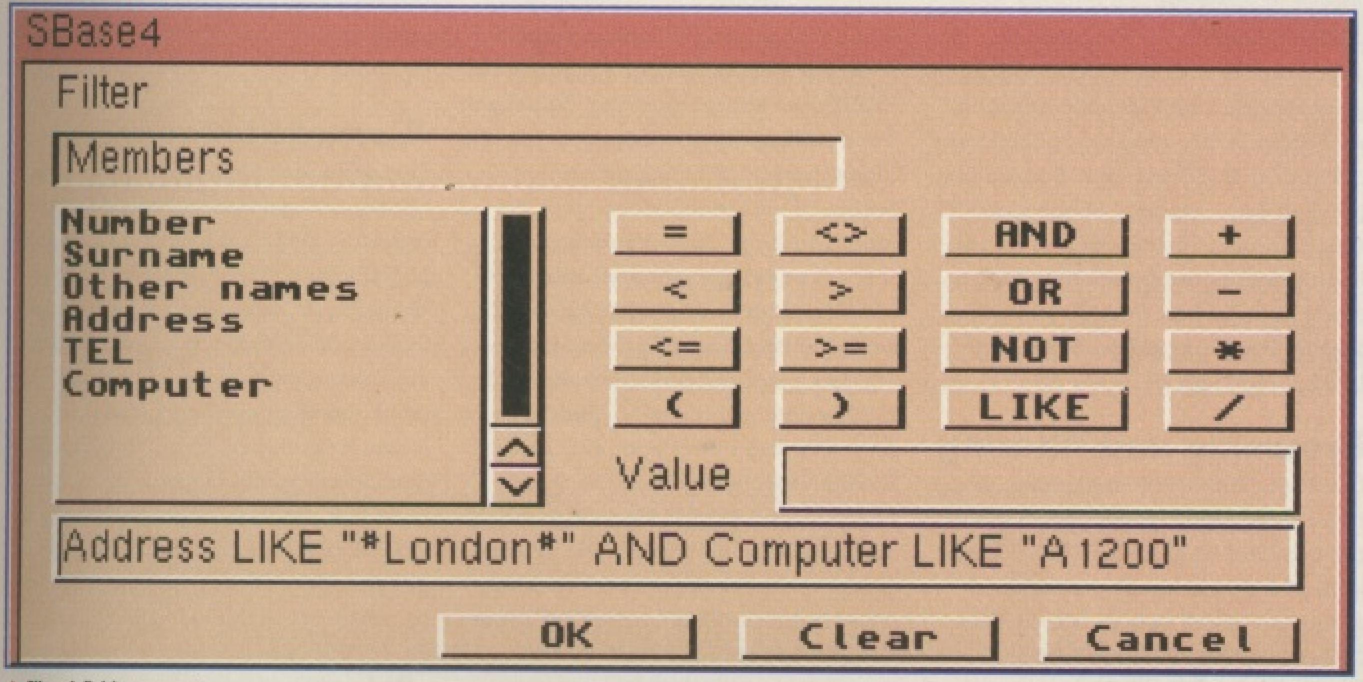
Figure. 3

1. Number format specified.
2. Increase/decrease no. of digits left of point.
3. Increase/decrease no. of digits right of point.
4. Select leading/trailing spaces, zeroes, etc.
5. Show minus and/or plus sign.
6. Currency and percentage sign options.
7. Misc. format options: exponential, thousands separator, etc.
8. Select number type (integer and long cannot contain fractions).
9. OK: accept changes and exit.
10. Cancel: cancel changes and exit.

Text format requester

Figure 4

1. Length: maximum number of characters in field.
2. Increase length.
3. Decrease length.
4. Normal text.
5. Upper case.
6. Lower case.
7. First character is upper case, rest is lower.
8. First character of each word is upper case, rest is lower.
9. Logical: has yes/no or true/false values.
10. Allow returns: text may be split over multiple lines
11. Responses: allow multiple items.
12. OK: accept changes and exit
13. Cancel: cancel changes and exit



▲ Filter definition requester.

Interactive Fiction

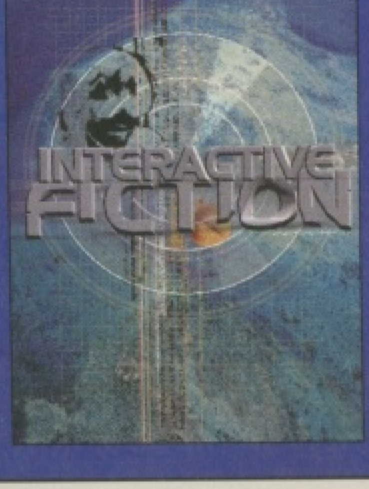
To tie in with this month's feature on Interactive Fiction, we have generously decided to include nine IF games on the cover disk.

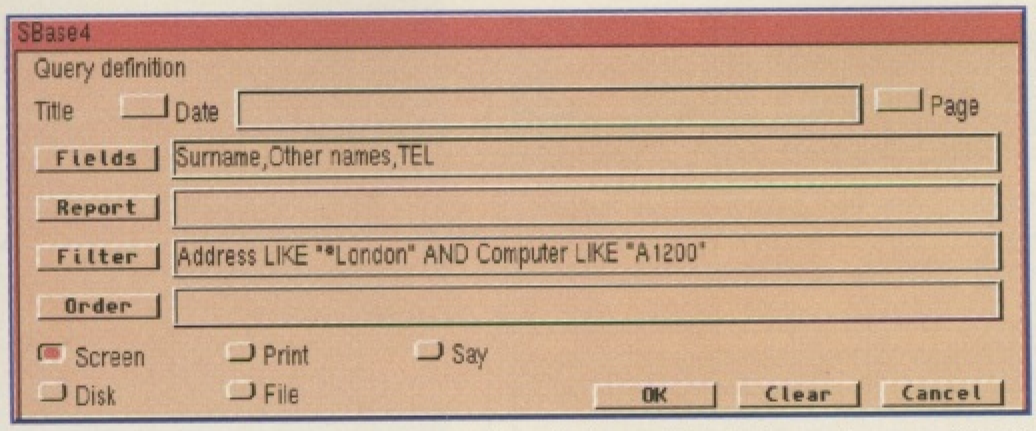
These games are text only adventures in the classic Infocom tradition. However, be warned – they are addictive. CU Amiga Magazine will not be held responsible for symptoms such as loss of temporal awareness, lack of sleep or the forgetting of meal times which may be caused by these games.

Eight of the games that we have given you are written in the portable Inform language, and so to play them on your Amiga you'll need an interpreter. Lucky for you we've put the program Frotz on the cover disk for just this purpose. To start a game, double click on the Frotz icon. When it has loaded, it will present you with a file requester. Simply select the game you wish to play and double-click. All the adventures have filenames ending in the letter 'z' and a number, eg; 'Jigsaw.z8'.

The other game on the cover disk is an Amiga version of that classic from the 70s, Dungeon, which formed the basis for the famous Zork Trilogy. It may be played by double-clicking on the Dungeon icon.

If you are eager for more information on Interactive Fiction, please read the feature. And don't forget, if you get really stuck with the games, you can always type 'HELP'.

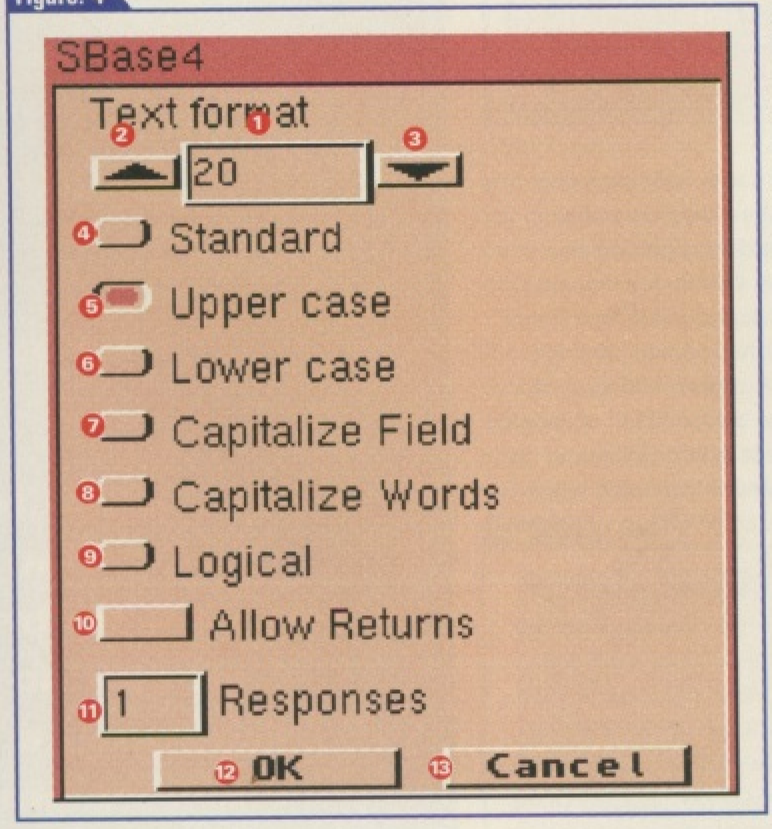




▲ **Query definition requester.**

record data is correct, 'Cancel' if there is a mistake. If 'OK' then you will be requested whether you wish to enter more records. Select 'Yes' here to continue adding more records. Feel free to make up some more names and address and add them to the database.

Figure. 4



You may modify the contents of a record at any time, by clicking on a particular field with the mouse when that record is shown on the worksheet and editing the contents as required. You may move the cursor to the next field of a record with the TAB key and back to the previous field with SHIFT+TAB. If you try to move to another record without saving a modified record, you will be informed and asked if you wish to save that record.

Browsing and filtering

Browsing through a series of records is simple thanks to the simple browser toolbar (see box). If you look at the title bar of the worksheet, it will tell you by which field the current file is being indexed. Press the '-' (minus) key to step through the available indexes. In our example file, when indexed on Number, the browser controls will move through the records in order of the Number field. When indexed on the Surname field, the records are ordered alphabetically by member's surname.

When you have many records in a file, the filter tool can be useful to reduce the number of records displayed to a manageable amount. When you click on the filter tool, a requester pops up. This allows you to enter a boolean expression, which will be evaluated for each record in your file. If it evaluates as true for a particular record, then that record will be displayed; otherwise, it won't. The language used for this expression is similar to BASIC. For example, in our database if we wished to only view records of those members with surnames before 'N' in the alphabet, we could enter the expression 'Surname < "N"`. A particularly powerful feature of SBase is the function LIKE which implements a kind of pattern-matching. Let's just suppose that we wish to view the records of all the members who live in London and own an A1200. We could perform a match on the Address field for those addresses which contain the string "London" somewhere in them combined with a match on the Computer field for the string "A1200". This could be done with the expression 'Address LIKE "*London*" AND Computer LIKE "A1200"'.

Pattern-matching is case-insensitive and syntactically similar to DOS, with '?' matching any one character, '*' matching any number of characters, and square brackets matching a character range. When performing a filter, the filter tool is highlighted on the toolbar, and the browser controls we only let you view those records which are accepted by the filter. To turn the filter off and view all the records, simply click the tool button again.

Database querying

The query facility in SBase works similarly to the filter function, but with the added advantages of formatted output and the ability to save query commands to disk for later re-use. Select Query>>Edit from the Process menu to define a new or modify an existing query, or select Query>>Open to load a query from disk. As an example we will use the filter from above to display a list of names and 'phone numbers of those members who live in London and own an A1200.

Type 'Surname, Other names, TEL' into the 'Fields' string gadget in the Query Definition requester. This selects the fields we wish to be displayed in the list. Next enter the filter expression from above into the 'Filter' string requester to select which records to display.

Click 'OK' for the list to be generated. When you have finished viewing the list, select the 'Current record' button from the toolbar to return to displaying records. Other query features include the ability to generate the query straight to a file or printer, to perform counting or summing operations on the list, and to create a title and date for the list.

A whole lot more

I have barely touched on SBase's features. There is a form editor to create visually appealling interfaces to your databases, there is multiple file support, there is the ability to implement so-called "external" files as database fields (e.g. text, pictures, etc.), there are facilities to import and export record data to and from various file formats.

If you use SBase Pro there is even a complete programming language called DML which allows you to create stand-alone applications which access your databases. ■

Richard Drummond

SBase4Pro Manual Offer

Mr. Hardware
100% AMIGA
COMPUTERS

Video Escort

A Message from Mr. Hardware Computers, the newest owner of SBase4Pro Amiga. The people at Mr. Hardware Computers would like you all to know a few things about our attitude towards the Amiga. To put it simply, we are 100% Amiga. We do not own, operate, or even consider using any other computer. Frankly, we think the other platforms are crap. We purchased SBase4Pro Amiga in 1996 because we didn't want to see it die and we have been working on upgrading it ever since. Admittedly, we have not been making as much progress as we had hoped. The reasons for this vary, but basically it comes down to two problems.

Problem One: The SBase4Pro source code was a mess when we got it. It took a lot of work just to make it compile under SAS/C v6.5 because it was last updated under Lattice v3. Our first programmer left the Amiga, our second programmer lost a lot of time after being injured in a car accident. The good news is that he has gotten better and he is back at work on SBase4Pro. We recently made a deal with another programmer, so there are now two good Amiga people diligently working on the code. We are finally making some real progress. Problem Two: Money! We don't have any! Being 100% Amiga does have its rewards, but great riches are not one of them. Our 100% Amiga dealership has grown in spite of the trials and tribulations of the Amiga, but it's very difficult to set aside money for programmers when every day is a financial challenge. To help solve this problem we decided to ask CU Amiga if they wanted to include SBase4Pro on their cover disk. As you can see, they said yes. We wanted to assure all the loyal Amiga owners that this is not the end of SBase4Pro for the Amiga, but rather it's a new beginning.

We have great plans for SBase4Pro which include an upgraded, freely distributable Runtime module that's fully compatible with the main SBase4Pro program. We want to encourage the Amiga community to use their Amigas to do business and to make their business software creations available to other Amiga owners. The future will bring new features to SBase4Pro such as font sensitivity, better graphics board support, networking, and more than a few surprises. We are going to do this with or without your personal help, but with it we can do it faster. That's why we're making the following offers at this time. Anyone who has purchased the CU Amiga cover disk version of SBase4Pro will be eligible for a special discount on the next version. A complete SBase4Pro user manual for the CU Amiga cover disk release can be purchased for $50.00 US plus postage. Please allow 6 to 8 weeks for delivery. Remember SBase4Pro is a $300.00 program that you just got for free. If you buy a manual, your discount on the next release version will be even greater. Video Escort, our fully featured Business Management and Accounting program for videographers, which runs under SBase4Pro, can be purchased for just $100.00 US plus postage. Retail Escort, our Point of Sale, Inventory Control, Accounting, and Business Management program, which also runs under SBase4Pro, can be purchased for a special low price of $400.00 US plus postage.

Retail Escort

Joe Rothman
Mr. Hardware Computers

For more information on Mr. Hardware Computers or any of our Amiga products, please visit our web site at www.li.net/~hardware, send email to hardware@li.net, or call us at 516-234-8110. Thank you for supporting the Amiga.

Eyetech's Easter specials A1200 PowerPC boards w/040/25/MMU/FPU - £238.95! Siamese RTG2.5 ethernet packs £199.95; DIY EZ-Towers from £79.95!!!; 4-speed CDROM system - £89.95!!!; ; 030 accel's w/4MB from £79.95, w/8MB from £89.95; 19 Mips '040/25 £128.95; 39 Mips '060/50MHz £268.95; 20% off mem prices bought with accel.; LS120 /Zip £89.95; EZ-Tower/EZkKey/Win95 kbd - £148.95

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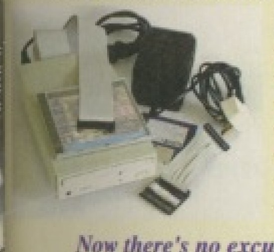


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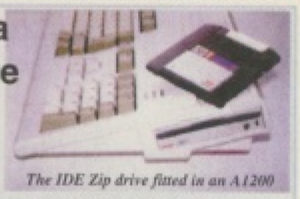
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ACC-30LC-25+8	Apollo 030/25Mhz/MMU/FPU w/ 8MB (max)	89.95
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ACC-30LC-33+4	Apollo 030/33MHz/MMU/FPU w/4MB (8MBmax)	89.95
ACC-30LC-33+8	Apollo 030/33MHz/MMU/FPU w/8MB (max)	99.95
ACC-630-33	Apollo '030 MMU/FPU 33MHz A600 acc to32M	69.95
ACC-630-33+4	A600 accel 030/33MHz/MMU/FPU/4MB (max8)	79.95
ACC-630-33+8	A600 accel 030/33MHz/MMU/FPU/8MB (max)	89.95
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FPU-XTL-33	33MHz crystal oscillator for FPU	5.00
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MEM-4MB-72P	72 pin 4MB 32 bit simm 70 ns	13.75
MEM-8MB-72P	72 pin 8MB 32 bit simm for Amiga	24.95
MEM-ZIP-20P	1MB(2chip)60ns Zip RAM HMS514400-6 Pg md	14.95
PT-EXT-PLCC	PLCC extractor tool for 33Mhz FPU	9.95
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SYS-TCP-MIA	Miami TCP/IP stack for Amiga (reg'n fee prepaid)	29.95
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CD32-JOY	CD32/SX32 joypad	9.95
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A12-MGK-PRO2	A12 EZTwr Pro2 '040-33/16mb/2.1/PCkb/16CD	799.95
ACC-30LC-25+8-SP	Acc 030/25/MMU/FPU/8MB w/ A12-MGK-FDD	79.95
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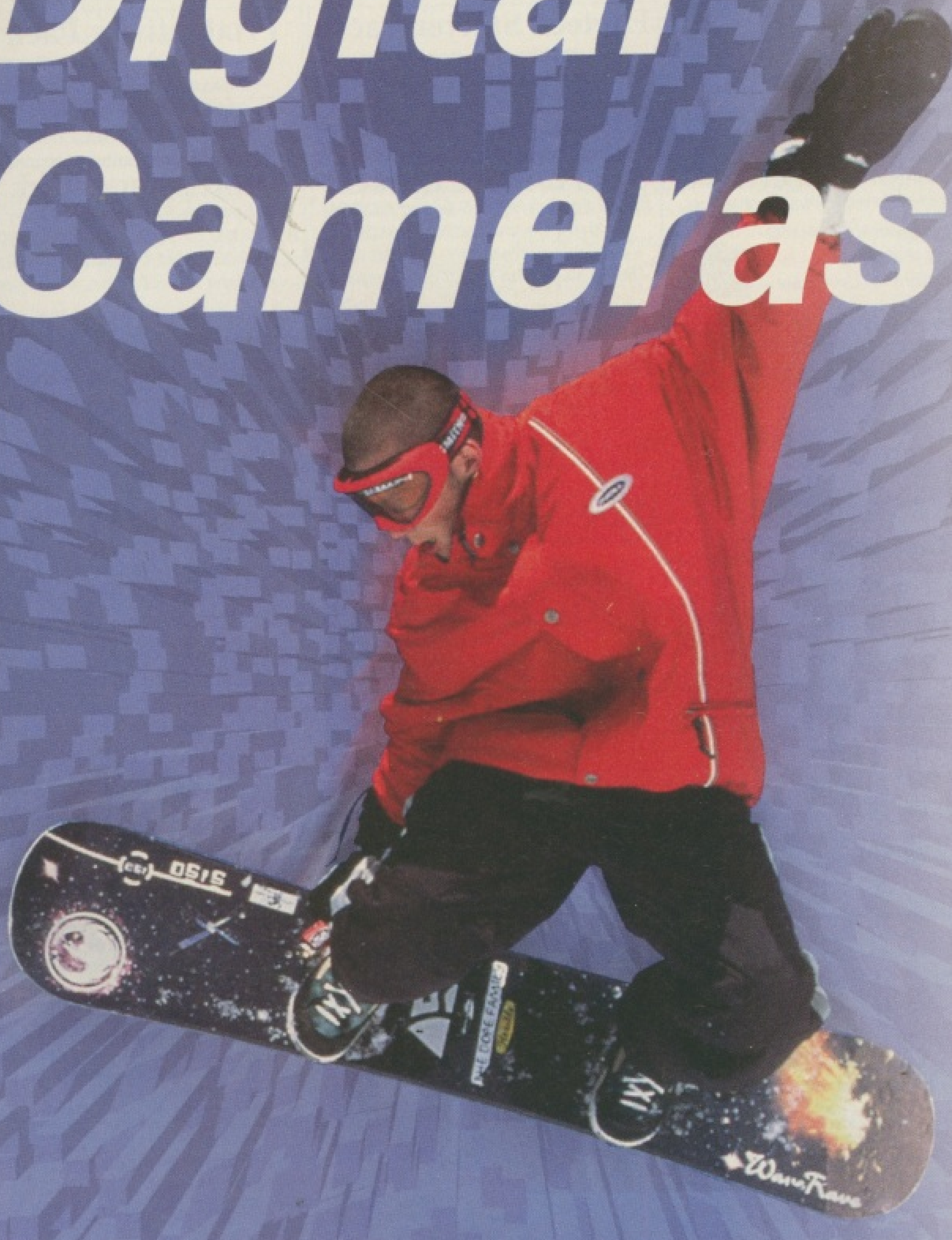
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Digital Cameras



Now is the time to get into digital cameras. Lower prices, better hardware and now plenty of Amiga software should be enough reasons for now...

Until very recently the realm of digital cameras offered little to the Amiga user. None of the hardware manufacturers produce Amiga software drivers for their digital cameras, so it was down to the Amiga community to get on with a bit of DIY. John Kennedy got the ball rolling with a simple downloader for two Kodak models.

While quite useable and certainly functional, one driver for two cameras (which unfortunately are now being discontinued) can only give you so many options. However, things have moved on since then, and now you can choose from at least a dozen different cameras ranging from the cheapest of the cheap to far more sophisticated and capable snappers.

So why should you get one?

There are plenty of reasons and an endless string of applications to which they can be put, but the main reason is that they are just such a convenient tool for getting photographs into your Amiga. What you shoot (and how you shoot it) is up to you, as is whatever you do with your pictures once they've been shovelled over to your hard drive.

They may appear like expensive toys: the latest gadget on which you're being encouraged to splash out our hard-earned money buying. Yes, it's true they are great fun – but they are also useful for anyone interested in computer graphics or photography, opening up all kinds of new avenues and making other jobs far quicker.

Digital photographs are ideal for use with DTP for example, as they can quickly be dropped into place. They can also be processed beforehand, to bring out detail or remove unwanted background details. Although the resolution of most cameras makes them unsuitable for professional quality work, if you plan on printing your project using a standard inkjet printer, they are ideal.

Internet web sites are another application for which the cameras could have been custom built. Web sites need images which are colourful and yet not too large: either their dimensions or file sizes. The pictures created by digital cameras are perfect in both respects. With a little ingenuity, digital cameras can also be used as "web cambots", providing automatically updated images.

Some digital cameras even have a built in



Bizzarre digicam applications

Above all, digital cameras are good for a laugh. Their flexibility and low running costs means you can mess around them in all sorts of ways. For example, there's a guy called David Grenewetzki who does all kinds of weird things with his DC20, such as creating 3D stereoscopic images, attaching the camera to a remote control aeroplane or model rocket and taking 360 degree computer-controlled panoramic photos. You probably wouldn't want to strap a £1000 camera to a rocket, but a model such as the cheap and simple DC20 can easily be padded and secured to a projectile and is unlikely to suffer too much damage in the event of a crash landing, purely because there are harldy any bits to break off it.



▲ Pictures: David Grenewetzki

facility to grab a sequence of small pictures – perfect for making small looping AnimGIFs for personal home pages.

Because digital cameras don't use any film, you can keep re-taking your shots, previewing them on the LCD screen as you go, until you get just the picture you're after. There are limits to storage space, comparable to conventional cameras, but you can delete any or all of the pictures when ever you like to make room for new ones. Some cameras come with flash memory cards for extra storage space. With a few of these memory cards you could build up a large stock of pictures in a single session 'out in the field' without having to return to base to download the pictures to make room for more.

You get what you pay for with digital cameras. Prices range from a little over £100 for the most basic to around £1300 for a top of the range example. The cheaper models output lower resolution images, have less storage space and basic camera mechanisms (lenses, flashes etc). See page 28 for more details on the cameras themselves.

Digital Camera Web Links

The DC20 Secrets Page:
http://home.t-online.de/home/Oliver.Hartmann/dc20secr.htm

The DC25 Pages:
http://home1.swipnet.se/~w-12269/

Remote Control Aeroplane Pictures
http://www.wco.com/~dgreno/

Cameras on Rockets:
http://www.wco.com/~dgreno/GalleryRockets.htm#ken

Amiga Digital Camera Page:
http://www.xpo.de/ag/digicam/index_e.html

Web Cambots:
http://www.virtuallondon.co.uk/cam.htm
http://www.capitalfm.co.uk/WebObjects/Capital/Features/London_Guide/Square_Eye/right.html

Stereoscopic Photography:
http://www.wco.com/~dgreno/GalleryStereo.htm
http://www.bbc.co.uk/the_net/e2/
http://www.internet.dk/hjemmesider/stereo/billed2.htm

Kodak UK:
http://www.kodak.co.uk

Olympus:
http://www.olympus.co.uk/indexE.html

Casio UK:
http://www.casio.co.uk/

Fuji:
http://www.fujifilm.com

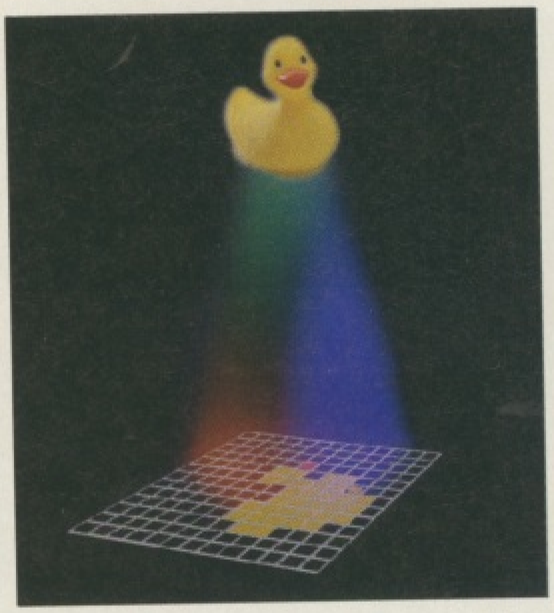


How they work

The key to all digital cameras is a chip called a CCD, or "Charge Coupled Device". This is a matrix of tiny cells, each of which can measure the amount of light which falls on them. In a colour camera, the CCD array is actually a sandwich of three CCD layers, one sensitive to Red light, one to Green and one to Blue.

Each cell in the CCD matrix creates a tiny electrical charge, and when the photograph is taken an analogue/digital circuit scans the entire CCD, converting the voltage levels into a level from 0 to 255. As each cell contains red, green and blue information this means that the image is captured with 24bit accuracy, which means over 16 million colours can be represented.

At this point the camera's internal processor compresses the image to save space: if the images were stored uncompressed they would take up too much room – even a relatively low resolution camera could create pictures of over half a megabyte. Most cameras use a similar form of compression to the well-known JPEG scheme, which discards some details in order to pack the



▲ **A digital camera works in a similar way to an ordinary camera. Light is focused onto a light sensitive region. In digital cameras, a CCD chip instead of film is used.**

images down as tightly as possible.

The compressed images are then stored in the camera's memory. This is another innovative area, as it's imperative that the memory doesn't "forget" its contents when the camera is switched off. Unlike the memory in an Amiga, the camera uses Flash RAM – a form of memory which requires no power to store data. Flash memory is still expensive compared to ordinary DRAM or SRAM, which is why digital cameras come with only small amounts: this explains why the images must be compressed.

To retrieve the images, the camera is connected to a computer. The most common way of doing this is to use a straightforward serial link. Serial links are cheap and easy to create, and all computers have compatible serial ports. The only disadvantage is that serial connections are quite slow, especially when dealing with large picture files. For this reason some high-end cameras have SCSI connections. Other cameras use PC cards with Flash memory, which means the cards can be removed from the camera and inserted into a suitable reader on the computer. Currently all the cameras which link with Amigas use the serial port.

Once the image has been transferred to the computer, it still needs to be expanded back into it's original form – or at least, as closely as possible. This is simply the reverse of the JPEG-style compression algorithm used in the camera. Sadly for third party developers, few manufacturers release detailed information on the compression used (understandably they don't want to disclose their trade secrets) which makes it hard to develop Amiga-based applications.

Make a resolution

Digital cameras often get a lot of criticism when it comes to resolution. Take the Kodak DC20 for example, which can capture images at a maximum of 495 by 373 pixels.

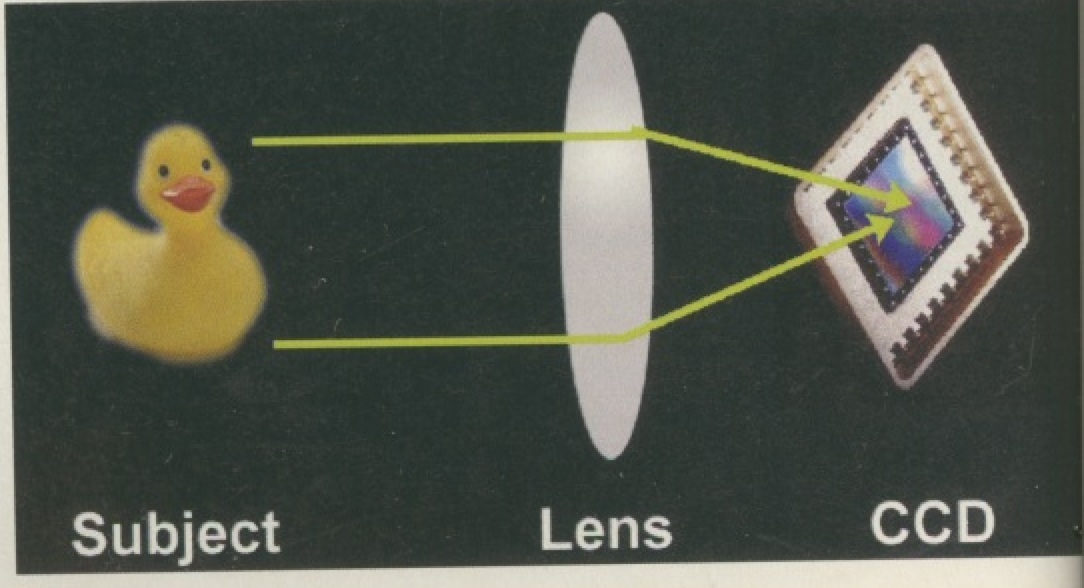
Compared to the output from a flatbed scanner, this resolution is so low to be laughable. Worse, the compression used in the cameras can blur fine details. Of course, you can get sharper pictures by increasing the resolution: the current generation of "megapixel" camera can take snaps with over a million individual pixels, as the name suggests. However, these are still expensive and Amiga drivers are not currently available. Worst of all, they still don't produce images of the same quality as a scanned photo.

Digital cameras have the distinct advantage that they are very convenient: it only takes a few moments to download a picture and display it on-screen. Compare this with ordinary film which needs developing and printing, before it can be scanned.

Furthermore, images captured by a camera are just about the right size for on-screen work. Higher resolutions are required for printing, but for messing around in a paint package or creating web sites, even the DC20's picture size is perfect. CCD is great for quick and easy image capture at home, and is also used by NASA scientists who find it an invaluable technology for space research and interplanetary probes.

Another hidden advantage is that CCDs can often capture images which film cannot: dark blues and greens, or fluorescent colours don't show up well on film. CCDs are also popular with astronomers: not only ground based ones with telescopes, who can use CCD to take and process exposures very quickly, but also NASA scientists who like to see what their space-probes are up to.

▼ **The CCD is a matrix of light sensitive cells. As the image falls onto it, the amount of Red, Blue and Green light is measured: this allows the image to be stored digitally.**



Future Developments

What's around the corner in the digital camera front? It's easy to predict that the current lines of development will continue and therefore images will gain resolution as the price of Flash memory drops. Let's not forget however, that the camcorder market is currently undergoing a revolution as it too goes digital. Using tiny little DV tapes, a digital camcorder can store moving images with a very respectable resolution of 500 lines, and many camcorders offer the ability to take still shots and send them to a computer or printer.

The biggest change though could be the integration of digital cameras with handheld computers. Casio's digital camera can be linked to it's Handheld PC running WindowsCE, but Sharp has gone one better and made a slot-in camera on a card option for their handheld.

In a few years such devices could be considerably more powerful and affordable, with built-in GSM mobile phone features. This means that not only could your camera take a picture, but it could also send it via email with the press of a button. And that soon leads on to the possibility of hand-held video conferencing systems, built into watches. The ability to make a video phone call whilst in the bathroom? Now there is something to look forward too...



Software

CamControl

■ **Type:** DM89

■ **Available from:** Vesalia Computers

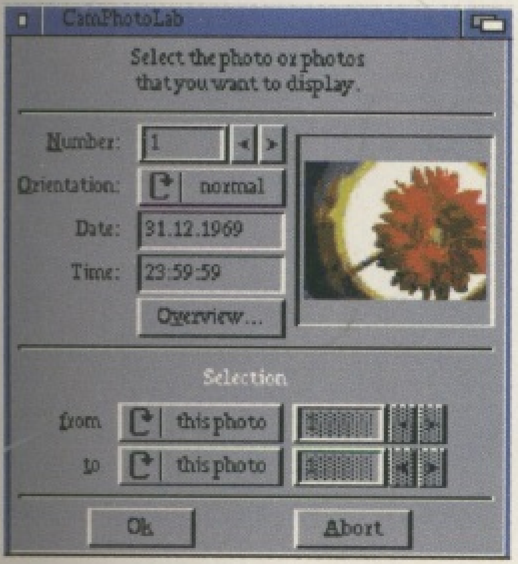
http://www.xpo.de/ag/digicam/index_e.html

■ **Price:** £29 (approx).

This commercial offering from German company Vesalia Computers comes in a variety of flavours, compatible with various Kodak, Olympus, Fuji, Minolta and Casio cameras.

Whilst it lacks many of the editing and enhancement features that other such drivers would contain (such as printer drivers like TurboPrint and Studio), it still serves as a very slick, stable and functional interface tool.

Five main operations can be carried out, ranging from transferring the entire camera memory to your chosen drive where it is saved as an archive, printing single or multiple images, running slideshows straight off the camera and deleting individual or multiple photos from the camera.



As well as being highly configurable, it has support for ports other than the standard serial device, meaning that users can connect their camera via the high-speed serial port of the Surf Squirrel and using add-on I/O cards such as the Port Plus, Multiface and Hypercom. However, with any of the cameras or software available, you are unlikely to get a successful transfer rate higher than 19,200 on a machine using lower than an 68030/50 processor.

Via the software, you can access the current camera settings remotely, as well as alter the brightness of the LCD display (if it has one), change the shot resolution (again, if it is switchable) and rotate the images as you download them.

The interface is similar to that found on most scanning software, with a preview window and various pull-down requesters to define whether you want to act on a single image or a group.

The various incarnations of the package are the following:

QVControl: Casio QV-10A, QV-100, QV-300
DS7Control: Fuji DS-7, DX-5
DCControl: Kodak DC-20, DC-25
DIVControl: Minolta Dimâge V
CamControl: Olympus C-420L, C-820L, C-1000L, C-1400L

Each version retails for 89.00DM, which is roughly £29 by current exchange rates.

A selection of ARexx scripts are also provided, which allows you to directly insert transferred pictures into applications such as Personal Paint, Deluxe Paint, PageStream, ADPro and Photogenics.

The main benefit of this software over other offerings at present is the ability to work on individual images, rather than all operations being en masse, making it an extremely close clone of the suppliers own drivers.

▼ Chris Green, reviewer of cameras and software, poses for the awesome Olympus c-1400L



AmiDC 2.0

■ **Type:** Freeware

■ **Available from:** John Kennedy

http://www.defocus.demon.co.uk/amicam/

■ **Price:** N/A

-John Kennedy's AmiDC is the only PD driver software available for the two compact Kodak cameras, the DC20 and DC25, allowing you to perform the basic operations needed to get your photos from camera to hard drive.

Software features are in fact quite basic, especially compared to its commercial counterpart, but nonetheless the program is functional, providing you with a simple row of command buttons:

Snap: This button is supposed to remotely command the camera into taking a picture, but which we couldn't get to work with either camera, seemingly due to a communication error between the two.

Fetch: A simple transfer command, which draws across the entire contents of the camera's memory, converting each individual picture into IFF format before saving the pictures in its default directory. However, at present you cannot transfer pictures straight from a memory card to the computer, as you can do with the original PC and Mac software.

Erase: Performs a complete erasure of the entire contents of the camera memory. Again, selective erasure is available on the original software, but has not yet been implemented here.

Mode: This updates the camera status information, such as the camera model, number of used shots, what format the shots are in (Hi or Lo res), what serial speed is set and so on. This a feature mainly aimed at and especially handy for the DC20, which does not have its own LCD monitor for displaying such facts, in the way the DC25 can.

File transfer from the two cameras is surprisingly fast, as is IFF file conversion. The lack of a destination requester is annoying, leaving you to hunt for your freshly converted files the first time you use it.

The program itself is very stable, although a stark warning at startup informs you that your computer will hang if the camera is switched off when you try to access it, but this is also common with some of the original PC and Mac software for it as well.

QVHack

■ **Type:** (beta release) Freeware

■ **Available from:** John Kennedy

http://www.defocus.demon.co.uk/amicam/

■ **Price:** N/A

This beta utility is the early stages of a PD driver for the Casio QV10a QV100 camera that is currently available from Aminet.

The program is still at an early stage, with no recognisable GUI interface, no image manipulatiuon and no particular controls other than a workable download routine. However it is still in active development, with a full user interface almost completed and enhanced download and image handling routines also being written for it.

You can download the latest version from http://www.defocus.demon.co.uk/amicam/.

Digital support in applications

As well as the ARexx support in CamControl, some of the high profile graphics aplications currently being released are also providing direct support for some of the more popular cameras.

Haage & Partner have just released a plug-in for use with ArtEffect, which adds direct support for the Kodak Dc20 to the program, while the new version of ImageFX will have direct plug-in support for both the DC20 and the DC25.





Olympus C-820L

Identical to the 420L in terms of design and control, this model is significantly higher resolution.

The 820L features a high definition LCD display and is compatible with the CamControl software package. This one has PAL television output facility like the 420L.

Both models have a 6V DC power input, tripod thread mount, LED display for frame count and flash settings and a standard viewfinder with guide marks.

Price: £699.99
Picture Capacity: 30 (Standard) 10 (Hi-res)
Picture Size: 768 x 1,024 pixels
RAM Size: 2 Mb (Expandable via optional smart cards)
Connection Cable: 9-pin Serial (Supplied)
RCA Phono (Supplied)



Olympus C-420L

The C-420L boasts a high definition 2 inch LCD screen, which unlike the Kodak DC25 also serves as a viewfinder in addition to a review screen for your pictures. The camera holds 80 compressed or 20 hi-res pics, both at a frame size of 640 x 480 pixels.

Amiga driver software is available in the form of the CamControl package, which includes ARexx scripts for direct insertion of images into graphics software such as PPaint and Pagestream.

Among the shot options is the ability to run off nine frames in quick succession, extremely useful for creating small animations, such as web site GIFs.

Images can also be viewed via a normal television set, using the supplied RCA video cable.

Price: £399.99
Picture Capacity: 80 (Standard) 20 (Hi-res)
Picture Size: 640 x 480 pixels
RAM Size: 2 Mb (Expandable via optional smart cards)
Connection Cable: 9-pin Serial (Supplied)
RCA Phono (Supplied)



Kodak DC20

One of the smallest digital cameras on the market, the DC20 is not much bigger than a cigarette packet. It is a very simple affair, with only three buttons, an on/off switch, the erase button and the digital shutter release. A tiny viewfinder serves only as a rough idea of what you'll get from a shot.

In common with most cameras in the same price bracket, the DC20 has 1 Mb of internal memory, which can store 16 low resolution images at a smaller than average 320 x 240 pixels, or eight hi-res pictures at a larger 493 x 373 pixels. Amiga software support is available in the form of a PD driver written by John Kennedy or a Kodak-specific version of the CamControl software.

Price: £109.99
Picture Capacity: 8 (Standard) 16 (Hi-res) Picture Size: 320 x 240 (Standard) 493 x 373 (Hi-res) pixels
RAM Size: 1 MB (Not Expandable)
Connection Cable: 9-pin Serial (Supplied)

Fuji DX5

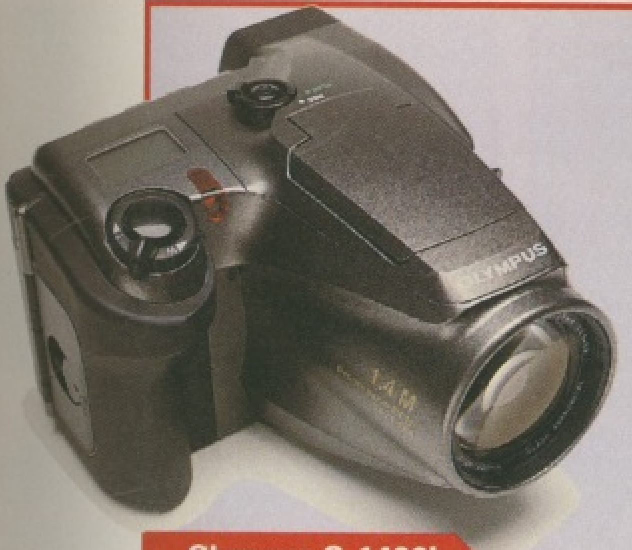
Styled like a conventional compact 35mm camera, the DX5 has a small pop-up flash in the centre of the camera but does not have the LCD display of the DS7, which makes it much smaller and lighter, on a par with the Kodak DC20.

Most of the main camera features remain the same, and soft ware support is also available in the form of the Fuji version of the CamControl package. Again, no PD drivers are available yet for this camera. Its one main advantage over the DS7 is the inclusion of a smart card socket, which allows for the use of removeable media and memory expansions, something which is lacking on the other.

Price: £499.99
Picture Capacity: 60 (Standard) 30 (Hi-res)
Picture Size: 320 x 240 (Standard) 640 x 480 (Hi-res) pixels
RAM Size: 2 MB (Expandable via optional smart cards)
Connection Cable: 9-pin Serial (Supplied)







Olympus C-1400L

By far the largest digital camera compatible with the Amiga, this has a host of high-spec features that are normally only found on 35mm cameras.

Inspired by Olympus' own is-1000, this digital camera features a built-in 3x zoom lens and pop-up flash unit. The rear of the camera also has a 1.8 inch LCD screen for reviewing your images.

One removeable 4 Mb smart card is capable of storing 49 standard res, 12 hi-res and 4 super hi-res pictures with a frame size of 1280 x 1024 pixels, the largest of the featured cameras. Yet again, software support is available in the form of the CamControl software package. Definitely the best of the group, but quality comes at a price.

Price: £1299.99
Picture Capacity: 49 (Standard) 12 (Hi-res) 4 (Super Hi-res)
Picture Size: 1280 x 1024 pixels
RAM Size: 4 Mb (Expandable via optional smart cards)
Connection Cable: 9-pin Serial (Supplied)



Kodak DC25

The DC20's big brother boasts the addition of a 1.6" colour LCD screen and a programmable flash.

This camera uses the same two frame sizes as the DC20, but with a larger 2Mb memory, it holds 14 lo-res or 29 hi-res pics. PCMCIA memory cards can be fitted, letting you boost capacity or empty out internal memory without downloading.

The camera is more complex to operate, with additional switches for flash control and picture resolution, along with extra buttons for controlling the LCD display and auto-timer control. A large rubber bung on one side conceals the connection sockets for the serial cable and for an optional power supply.

Software support comes in the form of John Kennedy's excellent driver or the CamControl package.

Price: £199.99
Picture Capacity: 14 (Standard) 29 (Hi-res)
Picture Size: 320 x 240 (Standard) 493 x 373 (Hi-res) pixels
RAM Size: 2 Mb (Expandable via optional PCMCIA cards)
Connection Cable: 9-pin Serial (Supplied)



Casio QV100

Casio were among the first companies to manufacture an affordable digital camera.

The QV100 features a 270° twistable lens, a 1.8" LCD screen and a 4 Mb internal memory.

The camera can hold 192 standard images or 64 hi-res, with a frame size of 320 x 240 pixels or 640 x 480 pixels respectively.

Software support is available in the form of a PD driver called QVHack or under CamControl with appropriate drivers.

Price: £299.99
Picture Capacity: 192 (Standard) 64 (Hi-res)
Picture Size: 320 x 240 (Standard) 640 x 480 (Hi-res) pixels
RAM Size: 4 MB (Not Expandable)
Connection Cable: 9-pin Serial (Supplied)

Fuji DS7

Fuji currently have two models which are supported by Amiga drivers. This, the more basic of the two is very similar to the Apple QuickTake 200.

This camera is very compact, dispensing with the flash but retaining a 1.8 inch LCD display screen and viewfinder. Stores 60 standard or 30 hi-res pictures at 320 x 240 and 640 x 480 pixels respectively. Looks similar to the Kodak DC20, except for the screen on the back.

Like the two Olympus compacts, the Fuji can be connected to a television or VCR for display on a television using an optional cable, while transfer is done using the provided 9-pin serial lead.

Yet again, this camera is supported by a version of the CamControl driver package, but no PD drivers are available at the moment.

Price: £499.99
Picture Capacity: 60 (Standard) 30 (Hi-res) Picture Size: 320 x 240 (Standard) 640 x 480 (Hi-res) pixels
RAM Size: 2 Mb (Not Expandable)
Connection Cable: 9-pin Serial (Supplied)



Whats it for?









Alternatively...

There is of course another way of getting an image into a computer, and that is to take a photo with a normal camera, get it developed, and scan it in with a standard flatbed scanner. This allows much higher resolutions (if you have seriously large amounts of RAM anyway), but it's a hell of a lot of work and effort. Here's a quick run down of each option at a range of price points.

£100

Digital: Kodak DC20, AmiDC2.0
Comments: Small, quick, portable and very easy to use. Image quality is poor, with low resolutions and an abysmal lens. Nasty to use.
Alternative: Disposable camera, end of range parallel scanner, PD scanning software.
Comments. Slow, low grade, likely to cause endless technical problems, expensive to run. Better image quality, but still poor.

£250

Digital: Kodak DC25, Camcontrol software
Comments: Much better in use, but lens and resolution still very poor.
Alternative: Decent Parallel scanner, PD software, second hand Praktica camera.
Comments: A lot faster and cheaper to run than the previous alternative system. Much higher optical quality than the digital alternative. High maintenance, though.

£650

Digital: Olympus C-820L (street price), Camcontrol software Comments: Much better than cheaper digital cameras, good exposures, real lens, decent resolution. Lovely to use.
Alternative: Good HP or Epson Scanner, SCSI interface, ScanQuix software, second hand Contax camera
Comments: Solid and reliable, able to produce excellent images without too much hassle. A long way from the Olympus' ease of use, but better quality.

£1500

Digital: Olympus C-1400L, CamControl, ImageFX3.0
Comments: Only camera in this group I would consider approaches normal cameras. Zoom lens, some exposure control, decent optics, all the ease of use of other Digital Cameras, twice the resolution.
Alternative: High resolution SCSI scanner with interface and ScanQuix software, Medium Format SLR

£Lots

Digital: Large format (5x4") camera with phase1 digital back or Canon EOS1n, seriously meaty Amiga with a lot of RAM, big



Will digital win?

The main reason why you'd want to put a photo into a computer is because you can then play around with it. Image processing software such as Art Effect or Image FX – or indeed photoshop if you use Mac emulation – are ideal for this. Even if, like me, you've spent years up to your elbows in chemicals in a darkroom, you'll still find a lot of value (and convenience) in packages like this. Here's a couple of examples of what you can do to make a bad photo interesting.

1: The wonders of Docklands on a dull, grey day. The processed image is far more dramatic. The spot colours on the shop signs were altered to make them stronger and brighter, and theres a little more blue in the image overall. The bit of overhanging branch was removed by copying another section of the sky, pasting it over and smoothing it out with an airbrush effect.

The sky was then made much more dramatic by selecting it with a 'magic wand' which allows selection of just part of an image, and then using brightness and contrast controls to bring out the subtle detail in the clouds. Strong contrast turns an overcast sky into one full of ominous storms.

2: A very typical snapshot, slightly blurred. Time to get desperate. Magic brush was used to select most of the background and darken it to near total black. A motion blur was applied to the filter and parts of the area were painted over to clean up confused areas. A watercolour effect was then applied to the overall image, before a few final tweaks were applied by hand. These 'materials' effects are a bit gimmicky, but can be very useful at times.

I still find the range of things possible with a darkroom a lot wider, but a lot more work too!

hard drives and decent Mac emulation for the software.
Comments: Cannons EOS1n is unlike those looked at here as it is basically a top flight 35mm SLR fitted with a high capacity data store and CCD array. Much better in use than low end digital cameras, great for "tele-photojournalism", but image quality still way behind conventional photography. Phase1 backs offer resolutions of up to 7000 by 7000 pixels, with each picture taking 140Mb and about 4 minutes to expose – for studio work only.
Alternative: Print grade drum scanner, 5 x 4" plate camera with Schneider optics.
Comments: Unbeatable print quality, strictly for serious professionals only.



The scanner and film approach – a 5 x 4 camera at 7500 times magnification.

Digital Cameras are great. You just point one at something and click the button, and you are a serial cable away from having a photo on your screen ready to bend to your will and your image processing package. The story would be rosy but for one thing – they aren't much cop.

The problem is that the output quality of best cameras today are still a long, long way behind what is possible with conventional photography. This isn't a necessarily going to be a problem, as re-production of an image is only as good as the weakest link in the chain – in many cases there is something of lower grade than the camera output. If you want to produce graphics for the Web, for instance, a digital camera is ideal as you don't need high resolutions, anyway.

Move into print reproduction, and things get a little problematic. A photograph in this magazine is printed at 300dpi (dots per inch), while higher quality reproduction in a coffee table book, for example, might be 600dpi. What this means is that a digital photo of medium resolution (640 by 480 pixels) will look blocky if reproduced larger than an two inches in the former case and one in the latter. Even then image quality will be less than ideal, it's always better to work within the limits of your original, not at them.

By contrast I have frequently printed conventional photographs at 30 inches (75 cm) across and more, at a far higher quality than the images in the best reproduced magazine.

Digital vs Analogue, round 2

The rise of digital photography has parallels in the contest in the last decade between vinyl and CD. CD, like digital cameras, provides information which is fundamentally limited by being digital. Vinyl records the full waveform of the original signal, while CD chops it into little segments and takes an approximation of each segment.



The difference is that with digital photography, the analogue alternative, film, is simply way ahead in the technology stakes. In very simple terms, conventional films work by exposing a layer of sensitive material to light. Developing chemicals remove or preserve parts of the layer depending on how much light fell on them. In the case of black and white film, you are left with a thin layer of silver salt crystals, while in colour film the silver salts replaced with bonded dye particles.

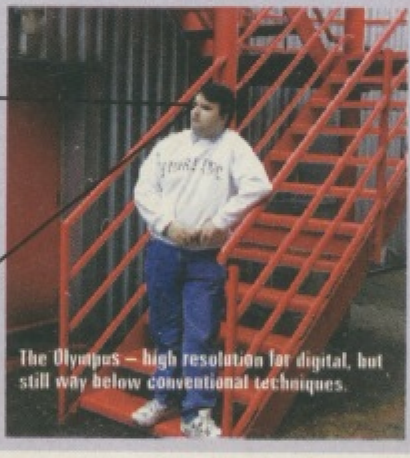
The final image is made up of minute dots of varying size, unevenly spaced. Even if a digital cameras had pixels as small as the particles of silver salt on a conventional film, because of the 'fuzzy' distribution of the crystals, the conventional film would still be more detailed. As it stands, no digital camera comes close to having pixels that small anyway.

It gets worse.

There are further problems with digital cameras. The CCDs they use for imaging are not wide bandwidth devices. Black and white film covers a ratio of sensitivity from darkest to lightest about 10 times greater than that of colour film (the reason so many photographers still use black and white) and colour film covers a ratio about 10 times greater than that in digital cameras. As a result, to get a reasonable contrast out of an image taken on a digital camera, the image suffers compression, which means lost subtlety of tone and detail.

Then we have the issue of data storage. Although the analogue/digital issue makes it impossible to do a direct comparison, high quality films can resolve the division of a pair of lines at the rate of approximately 350 per millimetre. Couple a 6cm square film frame, a good lens and a high resolution film, and you have a lot of information. To sample this digitally, you'd need a resolution of at least 100 times that of the top end Olympus 1400L, and in some circumstances ten times that. That would mean a mimimum 25, 4Mb cards for a single image. With a current street price of a hundred pounds a pop, you can see why this is not practical.

All in all, Digital photography is great for a certain subset of uses, but it has a long, long way to go before it can be considered a serious alternative.



The Olympus – high resolution for digital, but still way below conventional techniques.

Text adventures are back! In fact, they never went away, they just changed their name to Interactive Fiction and have been carrying on with a bold disregard for pictures, point and click interfaces, audio naratives and sprites with animated chins. It's time to rediscover the deep immersion factor that only a text adventure can deliver...

INTERACTIVE FICTION

You might think text adventures died off soon after Lucasarts revolutionised the genre with Maniac Mansion and the Monkey Island series. You might think they *should* have died years ago. If so, it's almost certain you haven't been near one for a very long time, in which case you really don't know what you're missing. To remind you, we've included some of the best on this month's cover disks and CD, but first, let's catch up on what they've been up to for the last decade.

>READ HISTORY

Back in the days when 64K and a disk drive was the pinnacle of performance and anything more was sheer affluent luxury, gaming had a slightly different face to it. You could shell out for an expensive computer just to play primitive games of arcade action, or you could take the high road into the world of text games, or "interactive fiction" as its adherents prefer. As the 80's wore on, the commercial market for IF began to slip, and its pioneers moved on to other projects. The fan base would not be satisfied just playing the same old games forever – they began creating their own. Primitive at first, often written in BASIC, eventually more sophisticated tools and authors came into the picture, designing new high-level languages specifically for IF.

Companies like Infocom, Level 9, and Magnetic Scrolls were dedicated to creating quality computer games that worked around the graphical limitations of the time by relying mostly or entirely on words to create a gaming environment that was engrossing, challenging, and rewarding. Others, like Scott Adams, relied on minimal description but instead tried to create a series of challenging puzzles to push your reasoning to the limit.

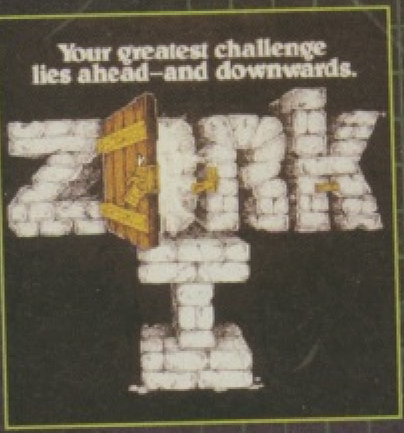
Infocom was started by MIT computer geeks who created an epic computer game (the original Zork) for mainframe computers, which kept local and networked users playing late into the night trying to solve its puzzles.

Once they went commercial, with just that 64K and disk drive you could unlock the door to richly detailed worlds that even the 24-bit graphics cards and CD-ROM epics of today have a hard time competing with.

Of course, some games are just the treasure hunts or sword-and-sorcery knockoffs commonly associated with IF. But there's much more out there – mystery, science fiction, biting social commentary, slice-of-life drama, ruminations on life, death, and suicide, even a Shakespearean play.

>TELL ME ABOUT THE AMIGA

The Amiga had something to do with the commercial decline of IF. By introducing out-of-the-box graphical capabilities unparalleled at the time, the Amiga opened the door for greater reliance on vivid graphics to tell a story, and pushed the rest of the market to catch up. Even so, a number of classic IF titles were published after the Amiga's release, and the genre has lived on, with Amiga users able to enjoy just about all of it. The freeware and shareware developments in IF languages have largely been open efforts, readily available for porting to the Amiga, and we've been fortunate to have a steady stream of volunteers keeping us well-equipped.



Once you go beyond the very simple "multiple-choice" style of writing an adventure game, the programming can get quite complicated. But the IF companies were smart and they developed custom programming languages to take most of the grunt work out of the job so that the storytellers could go about being creative instead of constantly having to reinvent the coding wheel. Typically, IF games come in the form of a single data file. This file can't directly be run by any machine, but many computers, the Amiga included, can run 'interpreters' which allow the game to be played.

In Infocom's case, the data file was a binary for the 'Z-Machine', a theoretical computer which had a certain base set of specifications for handling text input and screen output. When you play an Infocom game, you're really running an interpreter which emulates the Z-Machine, which then runs the game file.

This means that whether you're playing Infocom's Zork on an Amiga, a PC, a Commodore 64 or a Kaypro, you're really using the same exact data file but with a different program 'on top'. But the game companies never fully documented their internal development languages (to protect their R&D and their products). In recent years, however, exceptionally resourceful and intelligent IF fans have actually decoded the internal data files to create publicly available and portable interpreters for virtually all computer platforms. One Graham Nelson, an Acorn user, actually used research on the Infocom data files to create a language called Inform, which is a reasonable approximation of the original Infocom development language and creates compatible data files.

Using Inform, IF authors work their magic in a language which reasonably approximates C. The compiled result is a datafile which is indistinguishable from an original Infocom file, playable on a number of Infocom-compatible interpreters on a variety of platforms.



>PLAY IF ON

There's a variety of ways to take the IF plunge. The Amiga has interpreters for most of the popular IF development languages (Inform, TADS, Hugo, Alan), and so you can directly enjoy any game written in these languages simply by firing up the relevant interpreter. For most formats, there is only one interpreter choice. For Inform/Infocom games, there are several, but AmigaFrotz is the best (and not coincidentally, the one we've emphasized on the cover disk and CD).

There are older formats which can also be run through cross-platform interpreter programs. The works of Level 9, Magnetic Scrolls, and Scott Adams fall under this category.

Once you're done with all of those games (and it'll take you quite some time), you can move on to picking up a set of the Infocom classics. While most of the original Infocom releases are either sitting in attics or being hoarded by collectors for the clever packaging and toys Infocom used to use, several compilations of Infocom games are currently still available.

Activision (who purchased Infocom in the late 80s) released the Lost Treasures of Infocom in the early 90s. Volume 1 was released for the Amiga, while Volume 2 comes only in a PC version – no problem for you, though, since you're armed with AmigaFrotz and can play the games using the datafiles from a PC disk.

These compilations are out of print and somewhat difficult to find, but they do com with printed documentation.

More recently, Activision put out the Masterpieces of Infocom, a single PC/Mac CD which contained virtually all of Infocom text adventures and online documentation only, most of it scanned from the Lost Treasures set. While Masterpieces omits a few of Infocom's license titles (including th very worthwhile Hitchhiker's Guide to the Galaxy), the price is right.

The online documentation is a small hur dle since it is in Adobe Acrobat 'PDF' forma and the tools on the Amiga to handle PDF a woefully inadequate. Fortunately, last mont we explored in detail the virtues of reading PDFs under Mac emulation, and it's worth setting up Shapeshifter just to access the documents and play these games.

Finally, there's a vast amount of IF that was written for other platforms which will never make it to the Amiga in the form of a interpreter. In this case, emulate. Some of these games are now freeware: The works of Penguin Software, for example. The Apple, in particular, saw a great wealth of text adventure games of wildly varying qu ty in the late 70's and early 80's, and since Apple2000 capably emulates the real thing an 030/28, most Amiga users can have the real experience.

Games like Crime Stopper and

>CLASSICS – FROM IF'S HEYDAY.

- **The Pawn (Magnetic Scrolls):** The fantasy epic that most agree was the company's finest effort. Ported to most major platforms of the day, including the Amiga, and through emulation (or the C64 Magnetic interpreter) you can play almost any version you like.
- **A Mind Forever Voyaging (Infocom):** One of Infocom's more poignant works. You are a sentient computer charged with simulating the future and reporting on what some feel will be a great society... but something goes wrong, and the world goes to hell.
- **Planetfall (Infocom):** Responsible for arguably the most memorable NPC in adventure game history, Floyd the robot. Stranded on an uninhabited planet, you have to figure out what went wrong with their civilization before it catches up to you.
- **Zork trilogy (Infocom):** One of the ultimate expressions of the dungeon romp. Another IF rite of passage.
- **Silicon Dreams trilogy (Level9):** A little rough around the edges since they were very compact games, if you can get a hold of the novella it makes the games much more interesting.

Earthquake: San Francisco may not be art, but they are fun if you can find them.

>TELL ME ABOUT THE COMPETITION

Since 1995, the IF community has held an annual competition. Authors submit their games to a moderator, who makes them all available on a particular date. Any non-author can play the games and vote on as many as they have time to play, and the results are tabulated and prizes donated from the community are given out. Recent prizes have included cash, dinners, books, and the classic IF products.

From fairly humble beginnings, the competitions have grown significantly. Dozens of games were entered in the 1997 competition with over 20 prizes given out.

The biggest categories are Inform and TADS, but each year some of the second-tier languages have a showing. The 1998 competition won't start until autumn – there's plenty of time to learn one of the languages and come up with a story to share with the rest of the world.

>PLAY GAMES

With literally hundreds of IF games out there, all we can do is offer a short list of recommended titles. Most of these are on this month's CUCD.

Adventure (Don Woods, Will Crowther and many others): Adventure is the game that *really* started it all back in the mid 70s. Woods took what was at the time Crowther's fairly minimal recreation of a real-life cave he frequented and spruced it up, tacking on more puzzles, more rooms, magic, trolls, and so forth. For decades, people have toyed with the source code, adding even more on top of the games to the point of ridiculousness.

Interstate Zero (Adam Cadre): I-0 might best be described as a text game spoof of a T&A movie. You play a young attractive college student on her way home who gets caught up in misadventures. It sounds trashy (and in a number of ways it is) but it has perhaps the most attention detail ever seen in a text game. Awarded Game of the Year by XYZZYNews, for good reason.

Curses (Graham Nelson): Nelson designed Inform so he could create Curses, and vice versa. A difficult game but full of enough weirdness to keep you interested.

Mystery Science Theater 3000 (C. E. Forman): An unofficial work, based on the American cult TV show which mocks bad movies. This MST3K mocks a bad IF game: Detective, by Matt Barringer. It makes a painful game only slightly less painful, but now it's a *good* sort of hurt.

A Change in the Weather (Andrew Plotkin): The winner of the 1995 IF competition. Very, very hard, it challenges IF conventions and makes you think (and save your game) quite a lot.

Tube Trouble (Richard Tucker): A cute little game which won't (and didn't) win any major awards, but is a good way to learn puzzle-solving. If you haven't played any IF lately (or ever), this is a great place to start.

The Frenetic Five Versus Sturm und Drang (Neil deMause): Take charge of an eclectic group of superheroes to defeat an arch enemy. Very tongue in cheek.

>HELP

There are a lot of resources out there if you're interested in learning more.

• The Usenet newsgroups rec.games.int-fiction and rec.arts.int-fiction are the best place to join discussion of what's new and old in IF.

• The IF community has an Aminet equivalent. Check it out at ftp.gmd.de/if-archive, it contains just about everything worth seeing and doing in modern IF.

• There are two major online magazines dedicated to text games. XYZZYNews, at www.xyzzynews.com, and SPAG (Society for the Preservation of Adventure Games) at www.afn.org/~afn55673/spag.html.

• There's a commercially supported page which gets frequent updates at interactfiction.miningco.com.

• A commented web interface for the IF Archive, along with various other useful information, can be found at www.truespectra.com/~svanegmo/if-archive.

• While infrequently updated, Carl Muckenhoupt has gone to the trouble of doing capsule reviews and histories on just about every game on the IF Archive. Check it out at www.escape.com/~baf/if/if-guide.html.

• If you can't find Masterpieces, you can order it online from the US from CDAccess, ww.cdaccess.com/html/shared/infocom.htm. Cost is US$19 (less than £15) and they manage to keep the international shipping reasonable.

Now that you know all about Interactive Fiction, go and get lost in all those games that are on the cover disks. Even if at first it all seems just a bit too low tech, then stick with it for a while. Interactive Fiction is definitely here to stay.

Jason Compton

>IF MILESTONES

The 70s: Don Woods expands on Will Crowther's Adventure to come up with the "Colossal Cave" of good memory. Marc Blank and Dave Lebling develop Dungeon, more commonly known as Zork, which has a tip or two of the hat to Adventure but boasts a better command system and more rich descriptions.

1980: Zork I is released by Infocom for personal computers. Roy Traubshaw and Richard Bartle at Essex College design Multi-User Dungeon, the first online shared adventuring experience. Sierra On-Line releases Mystery House, the world's first graphical adventure, for the Apple II.

1984: Infocom releases Hitchhiker's Guide to the Galaxy, one of the most popular text adventures of all time.

1986: Activision buys Infocom. Activision would eventually lose almost all of Infocom's original development material, including their IF language.

1989: Infocom releases Arthur, its last adventure game. One year later, Magnetic Scrolls releases its last adventure.

1993: Graham Nelson announces the first release of the Inform language.

1995: The first IF Competition is held. Infocom publishes the top 6 games on the Masterpieces CD one year later.

1997: Over 30 games are entered into the third IF competition. Activision uses the Inform language to create Zork: The Undiscovered Underground, a prequel to their new graphical Zork game.

>ODDITIES AND "ABUSES"

Noteworthy for extreme cleverness or outrageous ridiculousness.

● Foom **(Piers Johnson):**
A text implementation of the first level of Doom. Believe it or not, but it is actually fun... sort of.

● Freefall **(Andrew Plotkin):**
Tetris as written in Inform. Really.

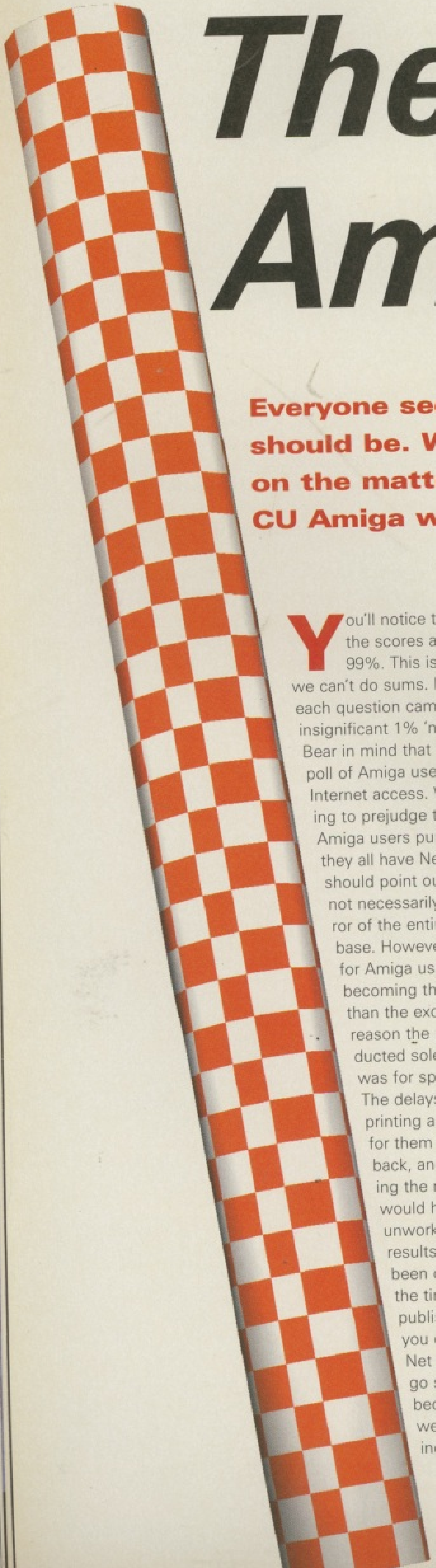
● Pick Up the Phone Booth and Die **(R. Noyes):**
A one-room, one-object, one-joke game, but it's a good joke.

● Robots **(Torbjorn Andersson):**
Sometimes called "Dr. Who". Another abuse of Inform.

● Gameboy Infocom Interpreter **(Martin Korth):**
The most ridiculous of the ridiculous. Allows you to play most of the original Infocom games on a Gameboy or emulator (use AmigaVGB for best results). Included on the CD with the freeware Mini-Zork.



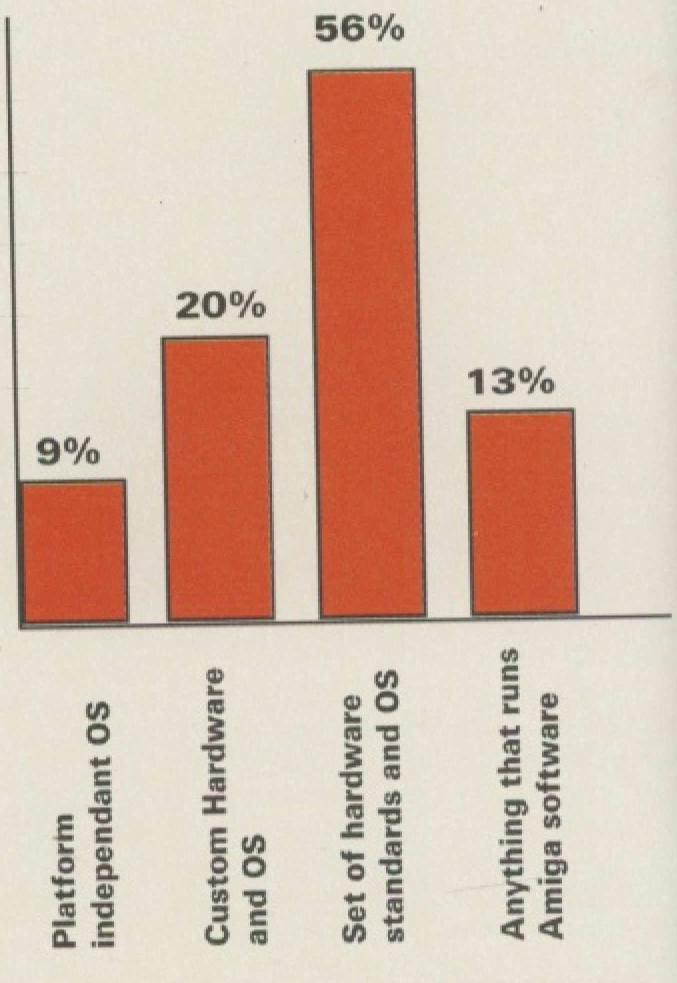
The Big Amiga Poll



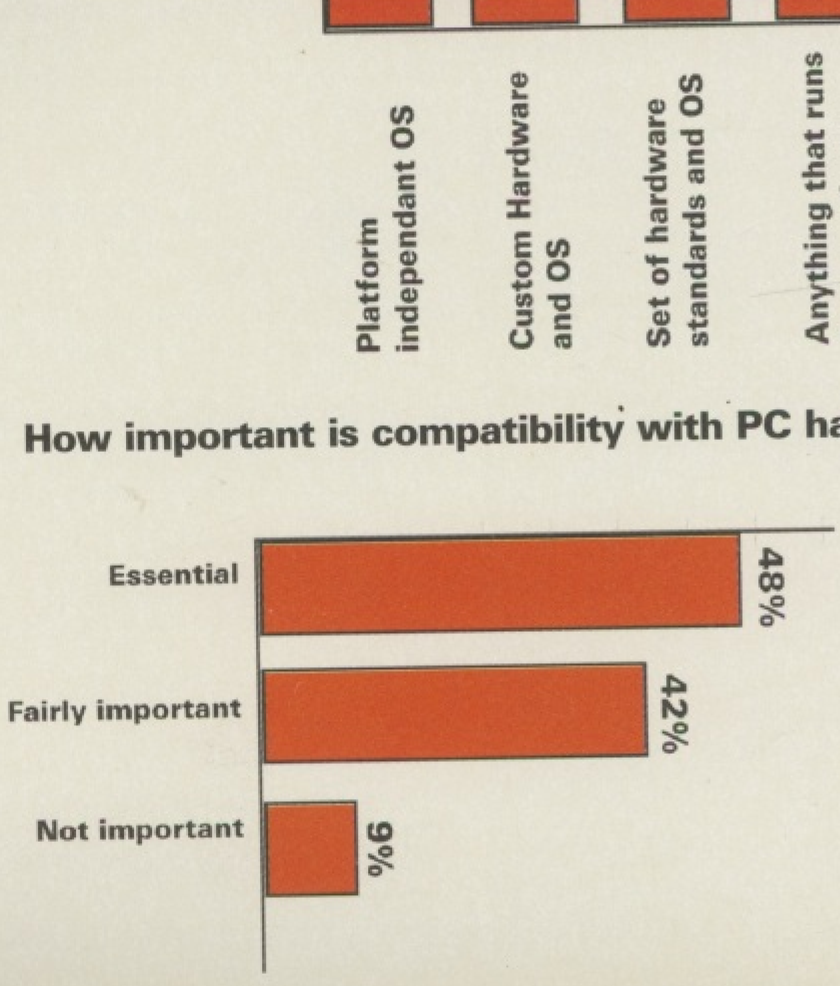
Everyone seems to have a different idea of what a new Amiga should be. We thought it was time the people were consulted on the matter, so we set up a poll on the CU Amiga web site...

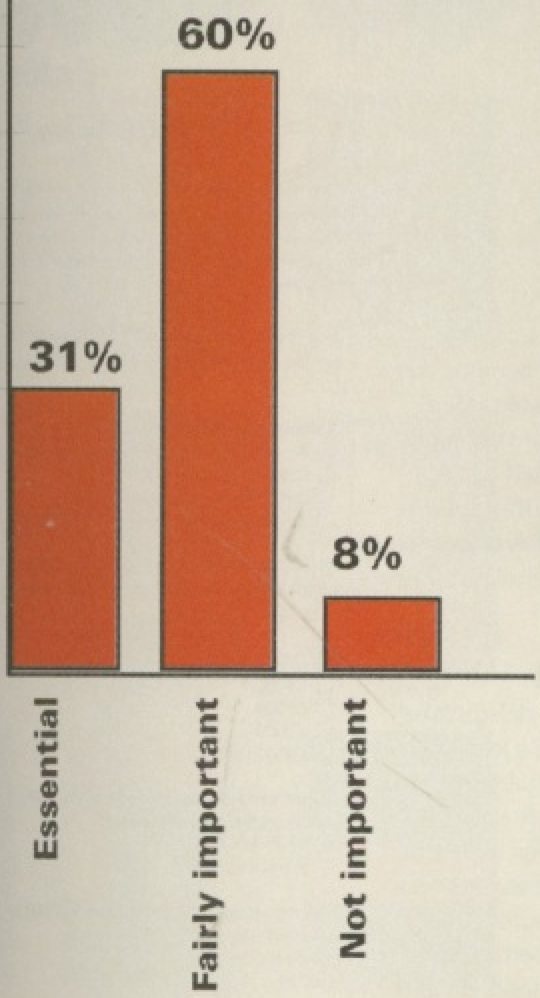
You'll notice that most of the scores add up to 99%. This is not because we can't do sums. It's because each question came out with an insignificant 1% 'no response'. Bear in mind that this was a poll of Amiga users with Internet access. Without wanting to prejudge this band of Amiga users purely because they all have Net access, we should point out that this is not necessarily an exact mirror of the entire Amiga user base. However, Net access for Amiga users is now becoming the norm rather than the exception. The reason the poll was conducted soley via the Net was for speed alone. The delays involved in printing a form, waiting for them to be sent back, and then compiling the results by hand would have made it unworkable and the results would have been out of date by the time they were published. So if you don't have Net access, don't go sulking because you weren't included!

Should a 'new Amiga' be:

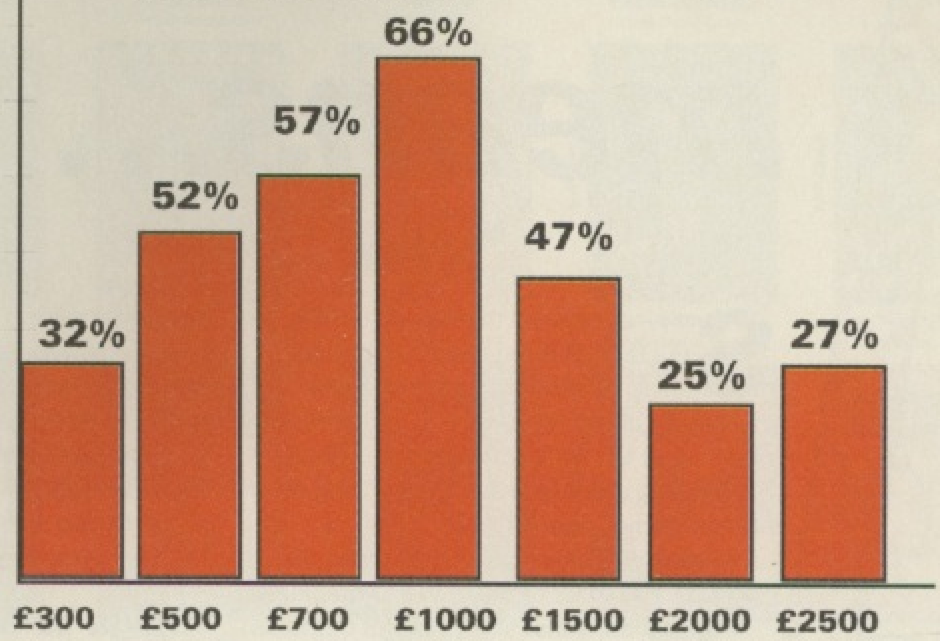


How important is compatibility with PC hardware?

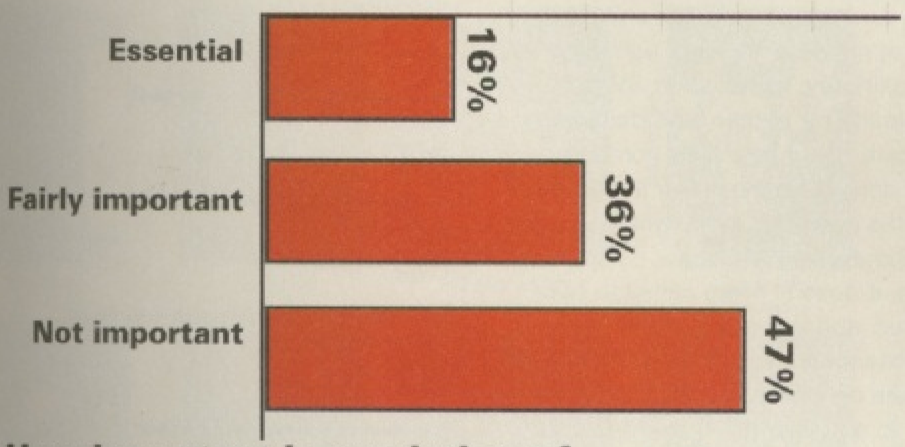




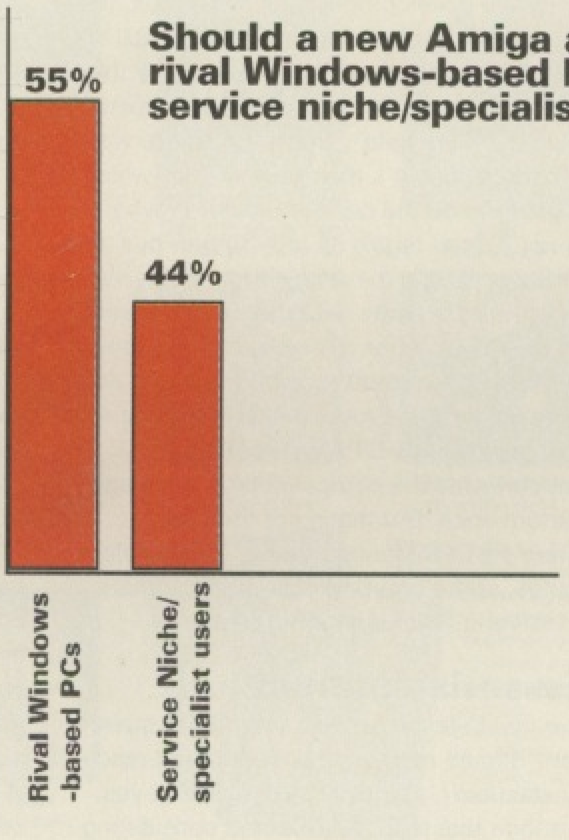
How important is backward compatibility?



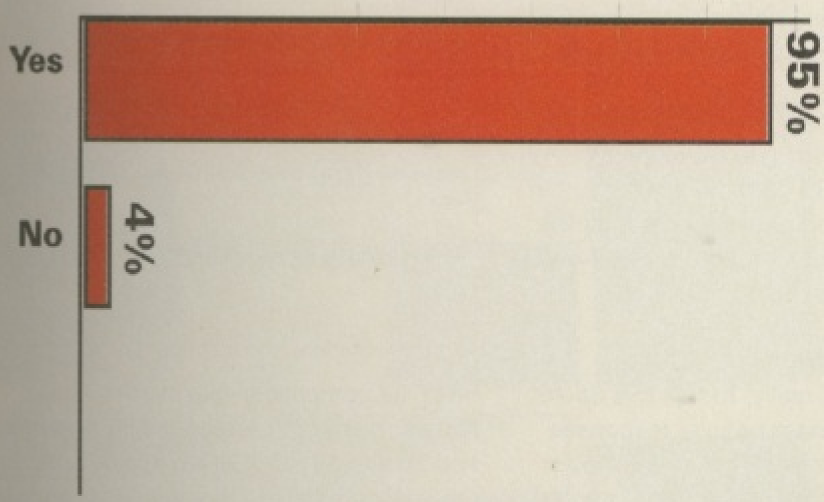
Which price points should new Amiga systems include? Mark as many as you think appropriate.



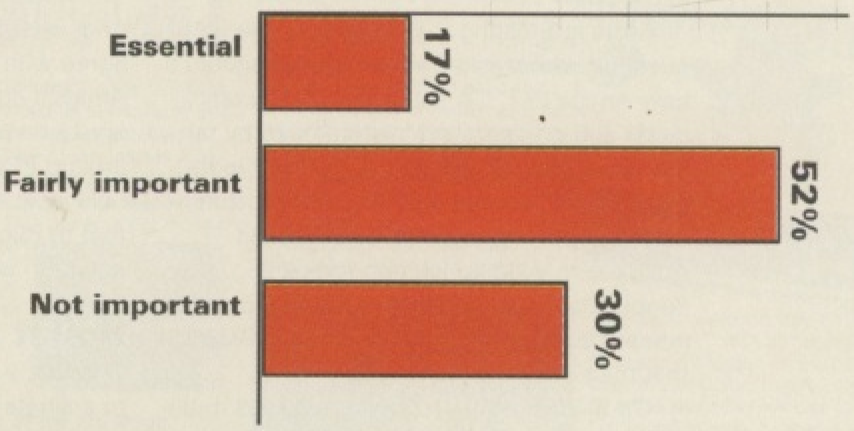
How important is emulation of Windows?



Should a new Amiga attempt to rival Windows-based PCs or service niche/specialist markets?



Should new Amigas be Internet ready as standard?



How important is Apple Mac emulation?

What it all means...

So what does all that lot tell us? On the face of it the results might not seem to shout out any particular message. On the contrary, they are proof of what we at CU Amiga have suspected all along: that everyone wants something different from a new Amiga.

All things to all people. That's what the Amiga was in its prime. It was a graphics workstation, a fast and colourful business tool, a miniature sound studio, a video editing suite, a games machine, a software development tool, a DTP box, the ultimate techno play thing... It's still all of those things now, but unfortunately these days it could hardly be described as being used by "all people". That's the bit we want to change, and it's this "new Amiga" which is going to be the deciding factor in whether or not it does regain its lofty former position.

Ironically, it's the Amiga's incredible versatility that is partly responsible for holding up its revival. If, for example, the Amiga had only ever been good at video work and nothing else, then the route ahead would be simple: make a new DTV system that out-performs the competition on price and performance. But that's not the case. There's a bewildering number of possible routes, some crossing over others, others shooting off into uncharted territory.

Essential Internet

The most stark response was to the question "Should new Amigas be Internet ready as standard?". Virtually everyone said yes, but then that is to be expected considering Internet access was required to participate in the poll.

More interesting is the result of the first question which asked what "should should a new Amiga be?". "A set of hardware standards and an operating system" was by far the most popular answer. "A platform independant OS" scored just 9%, proving that in most people's eyes there's more to an Amiga than Workbench and AmigaOS. People want Amiga Inc to make the rules when it comes to hardware. After all, isn't that their job?

On the issue of pricing, we allowed multiple responses to allow people to indicate the range of models they would like to see. On average the respondants marked three different prices, with more than half hoping to see models at the £500, £700 and £1000 marks. A fairly significant 32% are also holding out for a £300 Amiga, but in comparison 47% would welcome a £1500 workstation. There's also plenty of support for very high end machines, with more than half opting for £2000 and over. Once again, this confirms the diversity of the current Amiga user base, ranging from very low budget hobbyists right up to professionals.

Amiga vs Microsoft

A bullish 55% would like to see Amiga take on Microsoft and beat Wintel PCs at their own game. Whether that's wishful thinking remains to be seen. That left 44% who would rather see Amiga focus their sights on niche markets. As the Amiga has always been a choice for the discerning computer user, the targeting of niche markets seems the most logical and practical way ahead, despite the fact that every one of us would dearly love to see Amiga take on Gates and win.

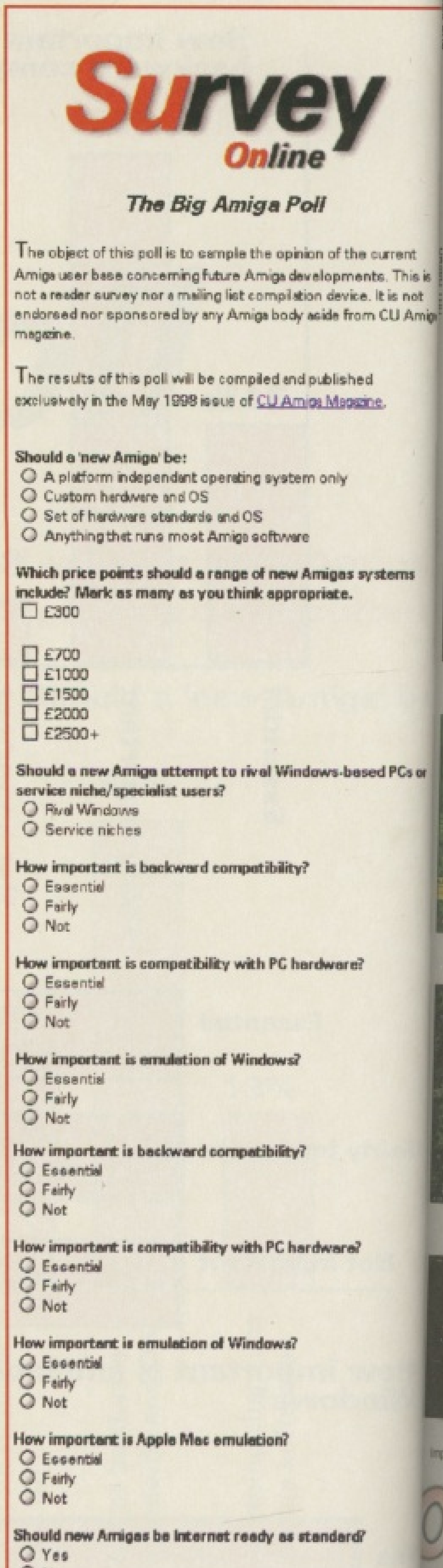
Aiming at niches is far from admitting defeat or taking the easy option. Wintel boxes are made for people who don't know and don't care about how their computer works and don't have the inclination to question the satus quo. That's not what the Amiga is about.

Even so, it doesn't make sense to burn ones bridges, and in the real world most computer users are going to feel the need to fit in with the mainstream from time to time. The ability to emulate the Apple Mac was rated as a fairly important by most, although almost half didn't have any desire for Windows emulation. It was encouraging to see the anti-PC lobby not spilling over into the issue of PC hardware compatibility.

Almost everyone thinks this is essential or at least fairly important, and we would agree with the essential response. The Amiga's custom chips were once revolutionary, but now the cutting edge revolves around PCI and AGB cards. Progress in this field is so rapid, and prices so competitive, that to rule such hardware out of the Amiga equation would be sheer madness.

Boil it down

And that's about it really. To boil this down to a single set of most popular responses would be misleading and not make much sense, but we'll do it anyway. Most people think a new Amiga should be... an Internet ready set of hardware standards and an operating system, with a model priced at £1000, should take on Wintel PCs head to head, be compatible with existing Amiga software and both Amiga and PC hardware and be able to emulate a Mac but not necessarily Windows. Whether this turns out to anything like the plans Amiga Inc. have up their sleeves, we'll just have to wait and see... Let's just hope they don't keep us waiting for much longer! ■



Survey Online

The Big Amiga Poll

The object of this poll is to sample the opinion of the current Amiga user base concerning future Amiga developments. This is not a reader survey nor a mailing list compilation device. It is not endorsed nor sponsored by any Amiga body aside from CU Amiga magazine.

The results of this poll will be compiled and published exclusively in the May 1998 issue of CU Amiga Magazine.

Should a 'new Amiga' be:
- ○ A platform independant operating system only
- ○ Custom hardware and OS
- ○ Set of hardware standards and OS
- ○ Anything that runs most Amiga software

Which price points should a range of new Amigas systems include? Mark as many as you think appropriate.
- ☐ £300
- ☐ £700
- ☐ £1000
- ☐ £1500
- ☐ £2000
- ☐ £2500+

Should a new Amiga attempt to rival Windows-based PCs or service niche/specialist users?
- ○ Rival Windows
- ○ Service niches

How important is backward compatibility?
- ○ Essential
- ○ Fairly
- ○ Not

How important is compatibility with PC hardware?
- ○ Essential
- ○ Fairly
- ○ Not

How important is emulation of Windows?
- ○ Essential
- ○ Fairly
- ○ Not

How important is backward compatibility?
- ○ Essential
- ○ Fairly
- ○ Not

How important is compatibility with PC hardware?
- ○ Essential
- ○ Fairly
- ○ Not

How important is emulation of Windows?
- ○ Essential
- ○ Fairly
- ○ Not

How important is Apple Mac emulation?
- ○ Essential
- ○ Fairly
- ○ Not

Should new Amigas be Internet ready as standard?
- ○ Yes
- ○ No

Your email address:

Click here to [Send] the survey or click here to [Clear] the form.

Back to the Survey index. Return to CU Amiga home page

Screen Scene

All quiet on the games front, so here's a much requested look at educational software. Games addicts can console themselves with a preview of the wonderful looking Genetic Species, and another Sourcecode conversion...









Genetic Species vs Quake

In the next month or so, two major releases will be vying for attention in the first person perspective shoot 'em up stakes, Quake and Genetic Species. All that most people know about GS is the early demos look pretty and a lot of people have been saying it is going to be good. The question that seems to be on everyone's lips is "How's it going to stand up against Quake?"



A number of people have voiced the opinion that Vulcan are making a mistake by launching so close to Quake. With both titles competing for the thirty pounds in the wallet of the Amiga gamer, people want to know which one is for them. Conventional wisdom points to Quake as being the superior game (after all, how can you compete with the master?), while GS is an Amiga specific game which will run more smoothly - especially on lower end machines. While there is some truth to this, such simplification misses the point utterly.

No contest?

If one were to look at the complexity of the 3D engine, there would be no contest. Quake is a true 3D environment where you can look (and fire) in any direction and at any angle. Much of the appeal of the game comes from this true 3D approach. Playing Quake, you will not only find yourself shooting at monsters way above or below you, you'll also find yourself launching grenades over walls or bouncing them down flights of stairs. Genetic Species goes back to a pre-Doom sort of 3D so basic that it could almost be described as a Wolfenstein clone.



Although it may sound like GS is batting way above its league, this would be more than a little unfair. GS coders Marble Eyes have made an astute decision in taking a 3D system which is relatively undemanding and using the spare horsepower that leaves them to polish it to a state way beyond anything ever done with that sort of an engine on any computer before.

Playing Genetic Species, you are unlikely to particularly notice the simplistic 3D because all the added extras make the environment look so awesome anyway. Texture maps are gorgeous, and clever use of lighting and transparency produces effects that are rather breathtaking. For example, if you fire a rocket down a long corridor in GS, a billowing trail of flame and smoke pours out of the end of it, and the walls of the corridor glow as it passes. When it hits the target, it bursts into glorious gouts of flame. Quake by contrast gives you a spray of rather blocky pixels.

If you want to know how well Quake plays, you can have a peek at the Quakeplayer demo on this month's CUCD. You'll see that it is pretty breathtaking to look at, but unless you have an '060 processor and preferably a graphics card, you'll find it pretty slow going. You can of course play with the various options to improve the speed, including some command line instructions, to make it run at very playable speeds on much slower processors. We'll give you a full rundown of the techniques when we give Quake a review, but ClickBOOM themselves have said that there isn't much point trying it out if you have less than a 50MHz '030. To be fair to Quake, the final version is reputed to be marginally faster, and watching it run on Quakeplayer makes it seem slower than it feels while actually playing it, but there is no doubt Genetic Species is faster. If a 68030/50 and AGA is considered the realistic minimum specification for Quake, it is a good machine to run Genetic Species on, with near full screen 1x1 pixel mode running very smoothly.



So, both games look fantastic. What about that all-important gameplay? Quake has come under much criticism for its gameplay. A common complaint amongst those who have had Quake for a while on their PCs or Macs is that Quake just doesn't have enough to it. It has often been said that Quake offers less gameplay than Doom, although I suspect that is just heightened expectation talking.

Much of the criticism clearly stems from a sense that the tweaks to gameplay have been minor compared to the tweaks to the game engine. There is no doubt that playing Quake in multi-player mode overshadows the single player game, but then Quake is widely considered the ultimate multi-player experience. In single player mode, Quake is tense, atmospheric and filled with puzzles which although mostly of the "which weapon should I be using here" variety, are none the less engrossing. Crucially, however, Quake comes with a heavyweight programming interface which allows people to create "total conversions", new games using the Quake engine. Thus Quake has not only its own playability, but potentially that of things like Malice, a superb total conversion oozing playability. A disk like Weird Science's Time of Reckoning expands the lifespan and playability of Quake further, with modifications including new levels, new weapons, and 'bots for single player deathmatch and catch the flag games. Genetic Species has been written with gameplay heavily in mind from the word go, and according to Vulcan Software's Paul Carrington, this'll be their secret weapon. If it survives the hype, it could be a 'lethal' weapon.

Genetic Species contains rather more to think about than in most such games. A great deal of attention has been paid to the artificial intelligence routines for the bad guys. Each behaves in a manner determined by their environment, so if you start firing loud weapons nearby they will come looking for you, and they are more likely to fight when you are outnumbered. Injure one badly, and he is that much more likely to run away. Genetic Species is also loosely mission based, and solving the puzzles requires more than just destroying everything. An interesting extra is the Portable Probe Device, which allows you to take over the bodies of enemies in a manner similar to the old Commodore 64 hit Paradroid. This becomes a core part of the puzzle solving, as you have to be in charge of particular kinds of enemy to get to certain areas in the game – ie; you may need to appear like a scientist to sneak into the science compound.

It's pretty odd that the two big first person shoot 'em ups on the Amiga would arrive so close to each other, and it is odd that they should manage to be so utterly different from each other. Returning to the original question, the simple (if expensive) answer to "which should I buy" looks like being both. Assuming no nasty surprises turn up in the reviews, I suspect these two titles that everyone is comparing will be too different to choose between. Hopefully they will be too good for people to want to choose between either! ■

Andrew Korn



EDUCATIONAL SPECIAL

Playdays Paint

■ Price: £9.00 ■ Supplier: Epic © 01793 490 988 ■ Age Range: 3-8 years

Playdays Paint is basically just a colouring book offering 46 pictures to colour in; varying from children playing in the park to a simple house scene. The child has to choose a colour from the palette and then place that colour using the mouse on parts of the picture to fill it. The 'Mix' button allows two colours to be combined.

There is also a 'Change Colour' button so you can edit the colours if the pre-selected ones do not suit (an adult may need to do that). 'Oops' will undo the last action just in case of mistakes and 'Erase' will allow you to start from scratch again. To select a new picture to paint you can click on the arrow buttons or click on 'Skip' which allows fast selection of any picture. A good idea here is that when you move to another picture, any colouring you've done is saved to disk. So if and when you return to the picture at a later date it will still be coloured in.

This could cause a few problems to the uninitiated Amiga parent. If you use the original disk and have it write protected (as you should) it will produce a requester asking you to unprotect it. If you do anything other than that the program will crash. As you don't want to overwrite your original you'll need to make a copy of the disk to use or install to hard drive.

AMIGA MAGAZINE SUPERSTAR

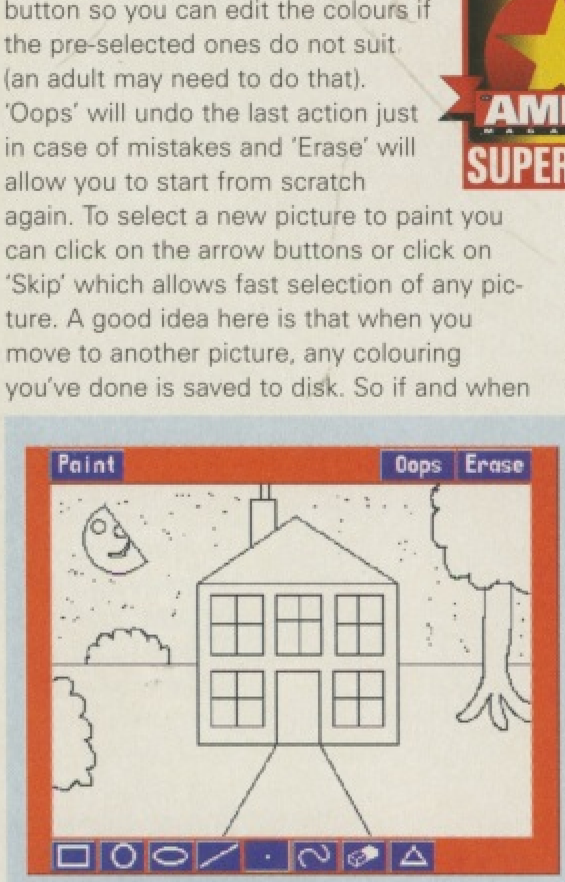
There are no instructions about any of this or even an installer on the disk. The problem with overwriting the original is that if the child should use the 'Draw' button and draw his/her own pictures in place of the originals you will eventually lose some or all of the pictures supplied with the program. My five year old loved being able to draw his own pictures, colour them in and then see them printed out, albeit in black and white.

92%

There are also options to print birthday cards, calendars, text and banners with your pictures. Overall, Playdays Paint is a brilliant program that nearly costs me an ink jet cartridge full of ink every time my son wants to use it. Very highly recommended. ■

Steve Bye









Playdays

■ Price: £9.00 ■ Supplier: Epic © 01793 490 988
■ Age Range: 3-8 years

This looks like good value for money when you consider the amount of activities on offer. To name but a few; Word Match, Snap, Odd One Out, Counting, Spelling, Dot To Dot, Sliding Puzzle, Rhymes, Noughts & Crosses, Treasure Search and more. My five year old took to the general theme of Playdays quite well, especially as he is familiar with the program from TV, and although he needed plenty of praise and encouragement to soldier on he did enjoy playing with Playdays for an hour or so. The problem was I think there is a little too much work (ie; thinking) and not quite enough fun.



You may view that as a good or a bad thing but as far as my kid is concerned it is most definitely bad! From the parents point of view Playdays will at least try to teach your



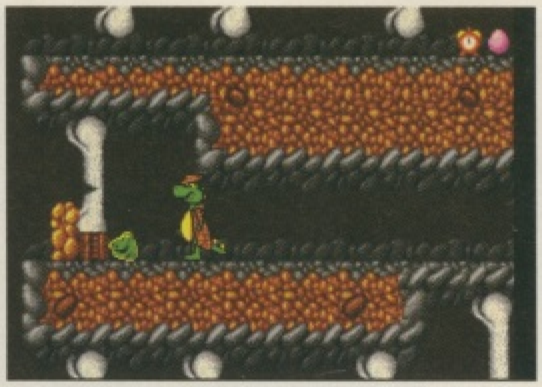
child a few worthwhile things. You will need to interact quite often for the very young as there is quite a lot of menus to navigate. Playdays is not hard drive installable which is quite annoying and plods along quite slowly in places, but worth a look. ■

Steve Bye

Kids Rule O.K. II

■ Price: £9.00 ■ Supplier: Epic © 01793 490 988 ■ Age Range: 8 years upwards

There are three games in this bargain priced and nicely presented box. Easily the best of the three is Dinosaur Detective Agency which has some great graphics and is good fun to play, but ultimately it's just a standard platform romp that most kids will get bored of fairly quickly. For a kids game it is pretty tough too.

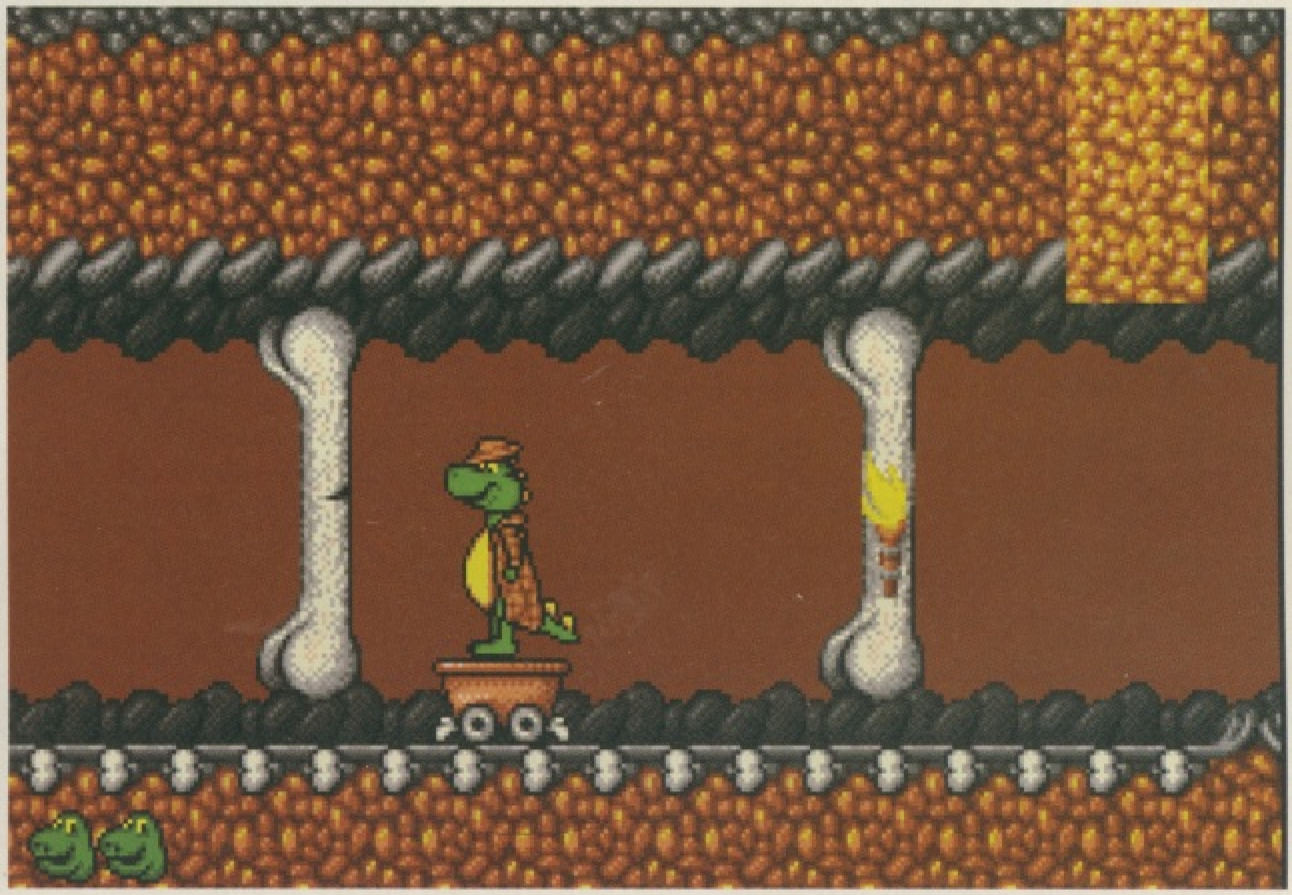


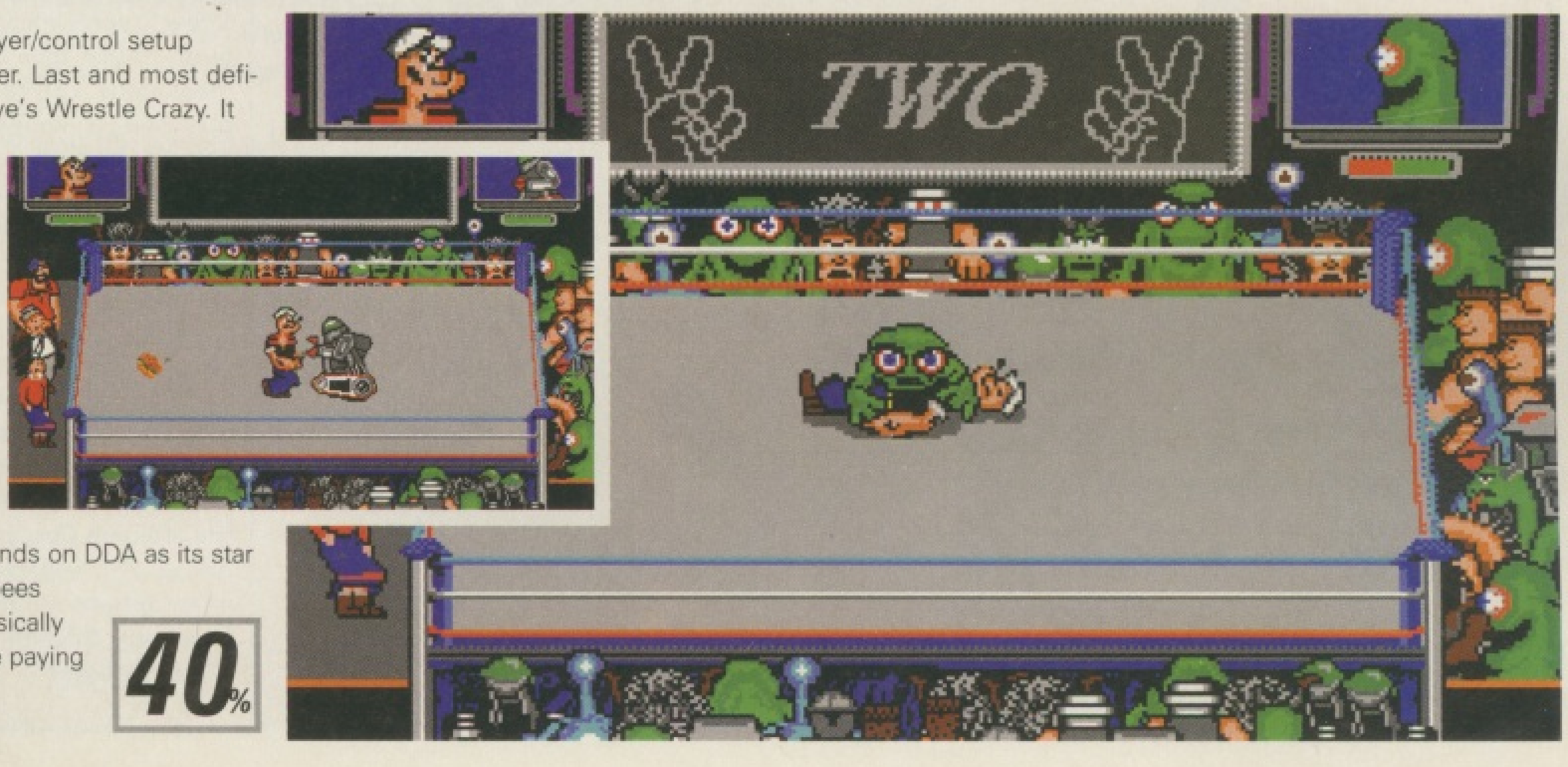


Next best is Bully's Sporting Darts, a very old game that has had its day, there is just as good, and some better, in the PD nowadays. You know the score? Point the wandering hand at the board and shoot. The only skill required is the ability to contain your frustration. The confusing player/control setup doesn't help much either. Last and most definitely the least is Popeye's Wrestle Crazy. It is well known that every compilation must have its dud and in this compilation Popeye is sadly it. Awful gameplay, awful graphics and limited control makes for a diabolical game with very little or no educational value.









This compilation stands on DDA as its star which isn't exactly the bees knees any more and basically that's the game you are paying £9 for. ■

Steve Bye

40%

Amiga Descent

■ **Available from Aminet: http://wuarchive.wustl.edu/~aminet/**

Hot on the heels of Doom, another big 3D PC hit is now available in a number of Amiga variants since the source code of Descent was released...

It's the done thing at the moment: release the source code of your back catalogue classics and invite the world's programmers to recompile it for new platforms. id Software started the ball rolling with Doom and now Parallax Software have followed that up by giving Descent the same treatment.

While nowhere near the phenomenon that Doom was, Descent was still a very big and influential step in the evolution of 3D games. Whereas Doom used 2D sprites for enemies and only allowed movement in two axes (walking up stairs doesn't count), Descent took things on another stage to incorporate total 3D movement and rotation backed up with with polygon objects.

That's the way the story goes at least. Of course, flight simulations had been doing this for years previously, but as far as 3D shoot 'em ups were concerned it was quite a big step.

As for the game itself, there's a bit more to it than the disturbingly realistic mirror of reality that is Doom's insane bloodfest. The object of the game is to rescue miners who have been taken hostage by aliens whilst working at the seam in tunnel networks beneath the surface of some far flung planets. To add a bit of pace and spice, you also have to set off the nuclear reactors in each mine and escape to safety before you're reduced to a microwaved TV dinner for the enemy



▲ Rescue Under Fractalus anyone? Descent puts you on a search and rescue mission in the mines of Pluto.



▲ Down down, deeper and down (sorry, no more Status Quo lyrics from now on).

will run on an 020 and ADescent on an 030 but the reality of the situation is that an 040 is the practical minimum. 10Mb of RAM is recommended, and OS 3.0 and AGA or a graphics card are required for display. Keep here for the latest on future revisions. ■

Jason Compton

Descent

This port does not offer sound or music, but is expected to get Virge 3D support for CyberVision 3D cards in the near future. Of the two ports, it performs relatively better under AGA than CyberGraphX, including a special 320x100 mode for gameplay which, despite taking a little getting used to, is quite fast and comfortable. If you have a fast enough machine, moving up to 320x200 (NTSC) is advisable. On an 060, a very respectable 15-20 frames per second can be achieved. Modes as large as 640x480 are available but are totally impractical even on an 060.

This port has some wild code in the texture routines, which make floors and ceilings appear bubbly and curving as you travel near to them. For a game like Descent which induces vertigo in a lot of people, this glitch unfortunately makes the effect worse. This, too, is pencilled in for improvement.

80%

Here's the rub...

As with Doom, the entire game has not been made freely available. The source code for the game engine has now been converted into two Amiga incarnations, but to play the game you'll still need a registered version of the original PC game (v1.5 to be precise). You should be able to get it from the main game suppliers currently advertising in CU Amiga.

Descent is a more resource-intensive game than Doom. In theory, Amiga Descent



ADescent

ADescent, on the other hand, does provide sound effects, which are quite welcome. I would suggest that CyberGraphX/Picasso 96 users start here – rather than Descent's hard-coded resolutions, you can customize the display using a requester. The "floor wobbling" is present but doesn't seem to be as bad in this version.

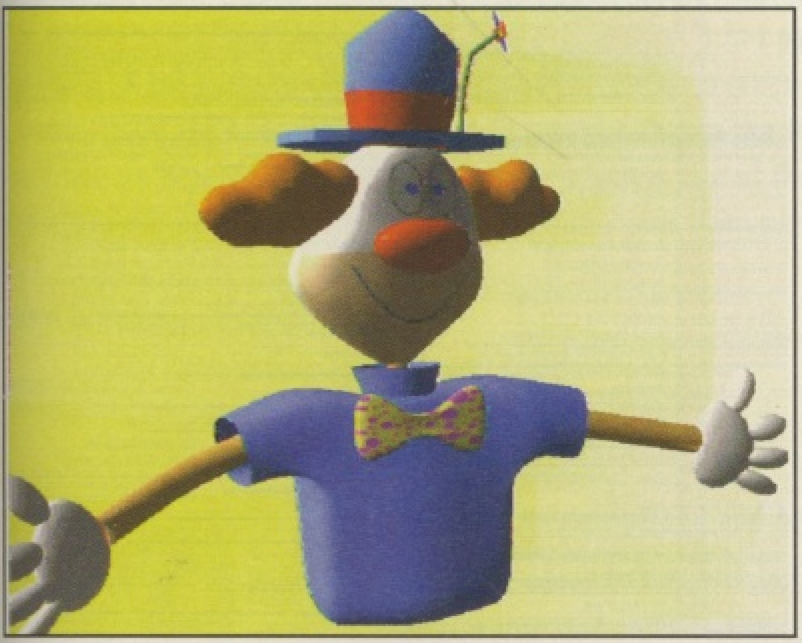
Sound is faithfully recreated , and adds a whole new world to gameplay. The speed performance is a bit disappointing, though, especially through AGA. It would have been nice to be able to shut off sound entirely – ADescent uses AHI, which is very convenient but not the most CPU efficient method.

There's still work to be done before the ultimate Descent is available for the Amiga. PPC support, 3D hardware, and more options are just the beginning. See you in the mines of Pluto!

82%

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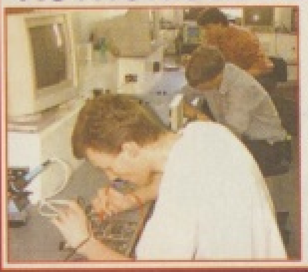
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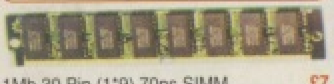
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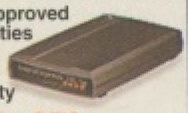
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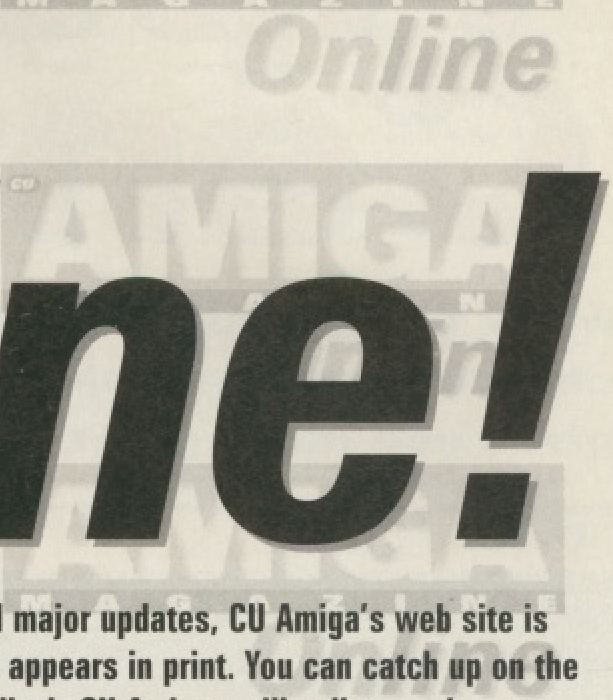
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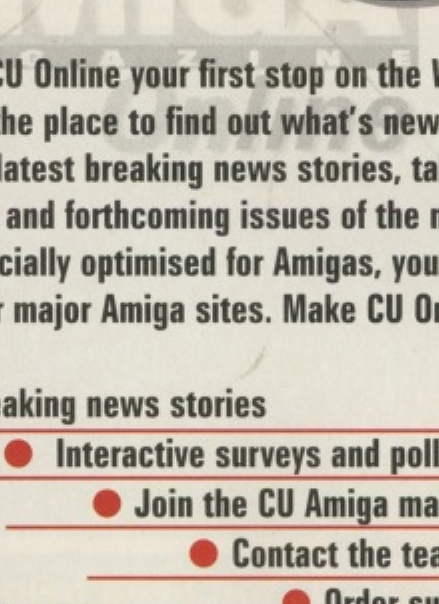
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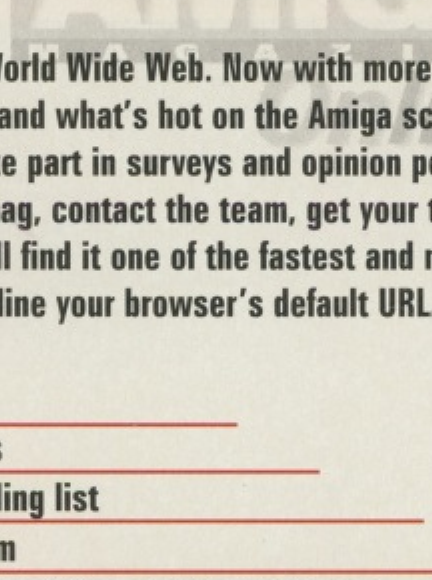
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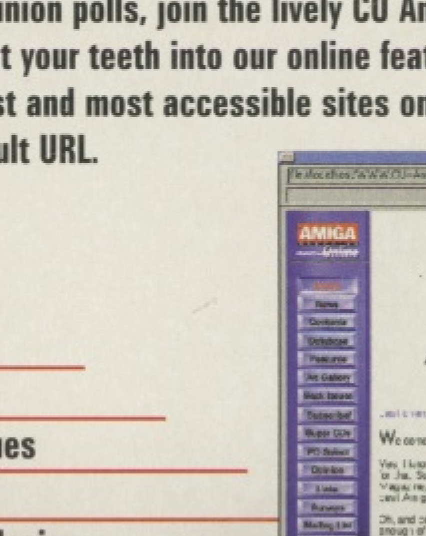


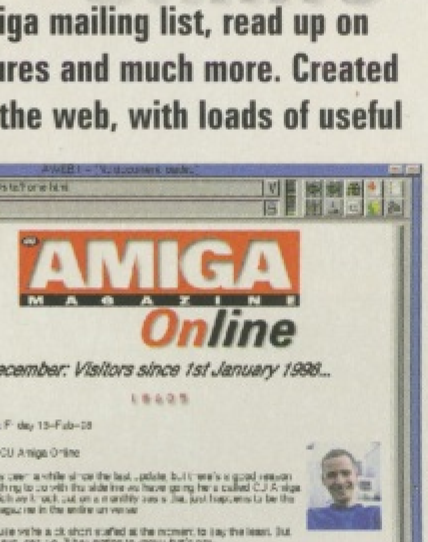
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Tips Central



Mark Forbes and Nicholas Magill have some useful cheats over here, whilst over there Sjur Mathisen, gives you more great Adventure tips.

Doom

These cheats can be typed in at any time during the game:

IDDQD – God mode
IDKFA – All weapons and keys
IDFA – All weapons (no keys)
IDDT – Shows complete map (doing it twice will also show you the enemies)
IDCLIP – No clipping mode (walk through walls)
IDSPISPOPD – No clipping mode (try it if IDCLIP doesn't work)

The following cheats have options:

IDBEHOLD followed by one of these letters...

I – Makes you invisible
L – Switch on all lights
V – Makes you invulnerable for a few seconds
R – Gives you a radiation suit
S – Gives you a berserk pack (which will kill most enemies with just one punch)
A – Gives you a computer automap

IDCLEV followed by a number will warp you to a different level.

This cheat code is slightly different depending on whether you are playing Doom 1 or Doom 2.



For Doom1 the first digit will take you to the specified episode, and the second digit will take you to the specified level (e.g. IDCLEV23 will take you to episode 2, level 3).

As there are no episode numbers in Doom 2, the number you type will take you straight to that level. Doom2 codes must always be two digits (e.g. to warp to level 9 you must type IDCLEV09).

To turn off a cheat simply type the cheat code again.

You need help

If you would like some help on any game – or you have some tips that you'd like to share with your fellow readers – then please write to us at Tips Central at the following address, remembering to mark your envelope Adventure or Arcade accordingly:

Tips Central,
CU Amiga Magazine,
37-39 Millharbour,
Isle of Dogs.
London E14 9TZ

Alien Breed 3D

More bug hunting mayhem once again as Brian Arnold gives us the codes we want that give: full lives, full ammo and all the weapons on all the levels!

Level 01:	**KLKOAEKLJJJJJJJ**
Level 02:	**KOKOAMKLJJJJJJJ**
Level 03:	**OKKOAGKLJJJJJJJ**
Level 04:	**PLKKIEKLJJJJJJJ**
Level 05:	**POKKIEKLJJJJJJJ**
Level 06:	**KKKOIGKLJJJJJJJ**
Level 07:	**PPKKIOKLJJJJJJJ**
Level 08:	**LLKOCEKLJJJJJJJ**
Level 09:	**LLKOCEKLJJJJJJJ**
Level 10:	**LOKOCMKLJJJJJJJ**
Level 11:	**PKKOCGKLJJJJJJJ**
Level 12:	**LPKOCOKLJJJJJJJ**
Level 13:	**OLKOKEKLJJJJJJJ**
Level 14:	**OOKOKMKLJJJJJJJ**
Level 15:	**LKKOKGKLJJJJJJJ**
Level 16:	**OPKOKOKLJJJJJJJ**

K240

And some neat codes to type in from Peter hodges from Poole.

Loadsadosh – Gives you 100,000 credits.
Widget – Gain blueprints.
Skyscraper – A building will be constructed within a day.
Iceman – Freezes all asteroids, repeat to unfreeze.
*Remember to also press return after each code you type.

3D Pool

Here are some codes for trickshot solutions. The first four numbers represent the table's orientation, the next three show the tilt of the table, the next two show the strength of the shot and the last two show the amount of right spin.

01 – 0768 024 63 10
02 – 1002 041 63 09
03 – 0032 100 63 00
04 – 0962 024 63 00
05 – 0512 024 63 10
06 – 0405 060 63 20
07 – 0018 061 63 20
08 – 0771 099 56 12
09 – 0932 024 63 11
10 – 0927 027 63 20
11 – 0751 100 16 20
12 – 0916 025 55 10
13 – 0004 054 58 20
14 – 0864 100 63 10
15 – 0084 076 12 00
16 – 0880 048 39 20
17 – 0372 100 63 06
18 – 0512 024 63 10
19 – 0601 024 63 20

Adventure Helpline

Willy Beamish

I'm stuck outside the tavern and I try to get in but the guard won't let me, then out of nowhere a gang shows up. I try to run but they catch me each time and that's it, game over.

Ewan McAllister, Dunfermline

Throw the cherry bomb the tourist gave you at the gang, if you took the tourists picture on the ferry that is. Then use the wrench the guard throws to you on the fire hydrant before the smoke disappears. Now run Linford Christie style to Toot-sweet headquarters and talk to the tourists. If you say the right things you should be safe.

OnEscapee

I've made it to the underwater base but now I've run around it forever. I've picked up the strange stungun looking gizmo, and I've shot at the guy by the spaceship.

I've even passed him and shot him from behind, but my lazer has no effect on him. This is a great game, and I'd really like to finish it. Please help!

Ian Roper, Mitcham

You have been so close to making it without my help! On the screen with the trigger happy guy and the spaceship, take a couple of steps towards the man.

Turn around, and bend down. Now the guy will see the stungun. And you'll learn it's no stungun but something they need to get the spaceship started.

The rest of the game is a piece of cake. Good luck!

Indiana Jones and the last crusade

Can you please tell me, which skulls to press in order to get to the tomb?

Stuart Owen, Bolton

When you come to the room with the skulls, look at the Grail Diary. In order to open the door, you must push the skulls in the correct order (the door will open for a small amount of time if you perform this in the wrong sequence).

Each skull is a different note from your father's diary (remember that you are Indy, and his LEFT is your RIGHT). I must confess that I don't remember the exact sequence, or if it's the same each time even, but the Grail Diary always holds the key. When I played this game some years ago, I looked in all the different books I was carrying each time I found myself stuck, and if my memory serves me correctly they helped a great deal.

KGB

I desperately need help. I'm stuck in the Enthusiastic Progress Club in chapter 1. I've entered the club, bought the tape from video and flushed the cocaine down the toilet. I know that the next step is to get the twins to lure you outside. How exactly is this achieved?

Paul Dunnington, W Midlands

Have you tried talking to them? You probably have. If you've done the right things earlier in the game they should invite you to a party. If you've done the following before talking to them, it should work:

Make sure you're wearing the clothes last seen in the closet in your bedroom. Grab the money in the drawer before you leave for Kursk Street. Enter the bar and speak with the bartender and Romeo, but don't discuss Hollywood or buyer 2. Find out when the bar closes, take the beer glasses from the bar and leave. Go around the corner to the left, enter the back room of the bar and go upstairs. Light a match and get the clipboard from the cabinet. Get out and walk around to the apartments and knock on the door to apartment 7. Say you're doing an opinion poll about the opposite sex. Enter and tell you're investigating murders. Ask about the neighbours and be sure they tell you about Belussov in Lefortovo.

Now go across the hall and talk to Belussov in apartment 5. Bring up Lefortovo and you'll get some inside information on the guy in number 4. When you're done at number 4 you'll know something interesting about the occupant in apartment 6. At this time you should also hear two thugs discussing their mugging strategy as they walk upstairs to the EPC.

Follow them up, and drop the clipboard in the hall. If you've done all this and then do what you'd already done inside the EPC, you're in for a party. To help you even further I'd advise you to have faith in yourself.

Why go for something small when it's possible to take on something bigger?



Not only do we have the first test of the long awaited Blizzard PPC card, but we've got loads of PPC compatible software too, including the very odd Elastic Dreams. Also after last month's Mac feature we take a look at the latest version of Fusion, and the PD pages have had a rejig, too!

TechScene

Blizzard PPC

■ Price: See price box (page 53) ■ Developer: phase 5
■ Supplier: White Knight ✆ 01920 822 302

Play the fanfare, roll out the red carpet... it's here at last! Richard Drummond and Andrew Korn take you on a guided tour of the eagerly awaited Blizzard PPC card.

The first words that spring to mind are "at last". The second are "at last!". I am of course talking about what must be the most eagerly awaited product to arrive for testing at CU Amiga Magazine in many a long year.

At last the product which has inspired a good 50% of all queries to our Q&A pages over the last six months is here. At last there is an affordable accelerator card for the vast majority of Amiga users with A1200s, which has the potential to bring their computers the horsepower they have been so seriously lacking. At last those of us without an A3000/4000 and a bank manager with a big smile can join in the PPC revolution – or evolution – espoused by Amiga International.

Unless you have been living on Mars or planet Microsoft for the past few years, you will have heard about the PowerPC. This CPU, developed by Motorola, Apple and IBM was designed to be a replacement for the old technology 680x0 series processors used in the Amiga and, until a few years ago, the Apple Macintosh.

Utilising a reduced instruction set, the PowerPC runs highly efficiently, most operations taking fewer clock cycles to perform than in old complex instruction set designs. This is good news, especially as the PowerPC packs a lot more clock cycles in a second than the old 680x0 CPUs ever did. No 'off the shelf' 680x0 CPU used in an Amiga has ever broken the 50MHz (million cycles per second) barrier, although the latest revision 060 processors allow clock speeds of 66MHz safely.

By contrast the BlizzardPPC card we have here, the cheapest, slowest of the crop, runs at 160MHz. Although the 603e processor used in this card is a little slower clock for clock than the 604 used in the Cyberstorm PPC card we reviewed in our January issue, it certainly has the potential to make whatever processor you currently have in your A1200 look very silly indeed.

Two CPUs

These new cards from phase 5, just like the Cyberstorm variants for the A4000 and A3000, actually have two CPUs on board, one PowerPC CPU and one 680x0 series CPU. Although it would be ideal to have just one, software written for the Amiga to date uses the 680x0 series instruction set and so will not run on a PowerPC chip.

Most importantly, this includes the Amiga Operating System. Without an OS, you don't even have a computer. To retain the ability to run the operating system and all old software, it is essential that an accelerator card should be able to run 680x0 code. Although it should be possible to produce a PPC

PowerPC software

There is not much point in having a bright and shiny new PPC chip attached to your Amiga without some software to show it off with. Consequently, this month's CD-ROM is the ultimate PowerPC software resource: it contains a 100Mb archive, crammed with just about every Amiga PPC compatible we could find.

One area where there seems to plenty of development is in that of PPC image manipulating software. There are a number of packages available but a real CU favorite is Milan Pollé's effects processor Candy Factory. It allows you to apply effects (light-sourced bevel, shadow, glow, noise-bump, etc.) to an IFF mask image, say a piece of bitmapped text. Its works on any Amiga, but with the PPC version many of these effects can be applied in real-time. It is a perfect tool for creating stunning logos for WWW pages. The package is freeware and needs some polish, but is an impressive beginning.

Perhaps the most useful PPC compat-

040/603 Card

accelerator card with software capable of emulating a 680x0 CPU, there are various disadvantages to this approach which led phase 5 to adopt, and Amiga Inc. to sanction, the dual CPU approach for now.

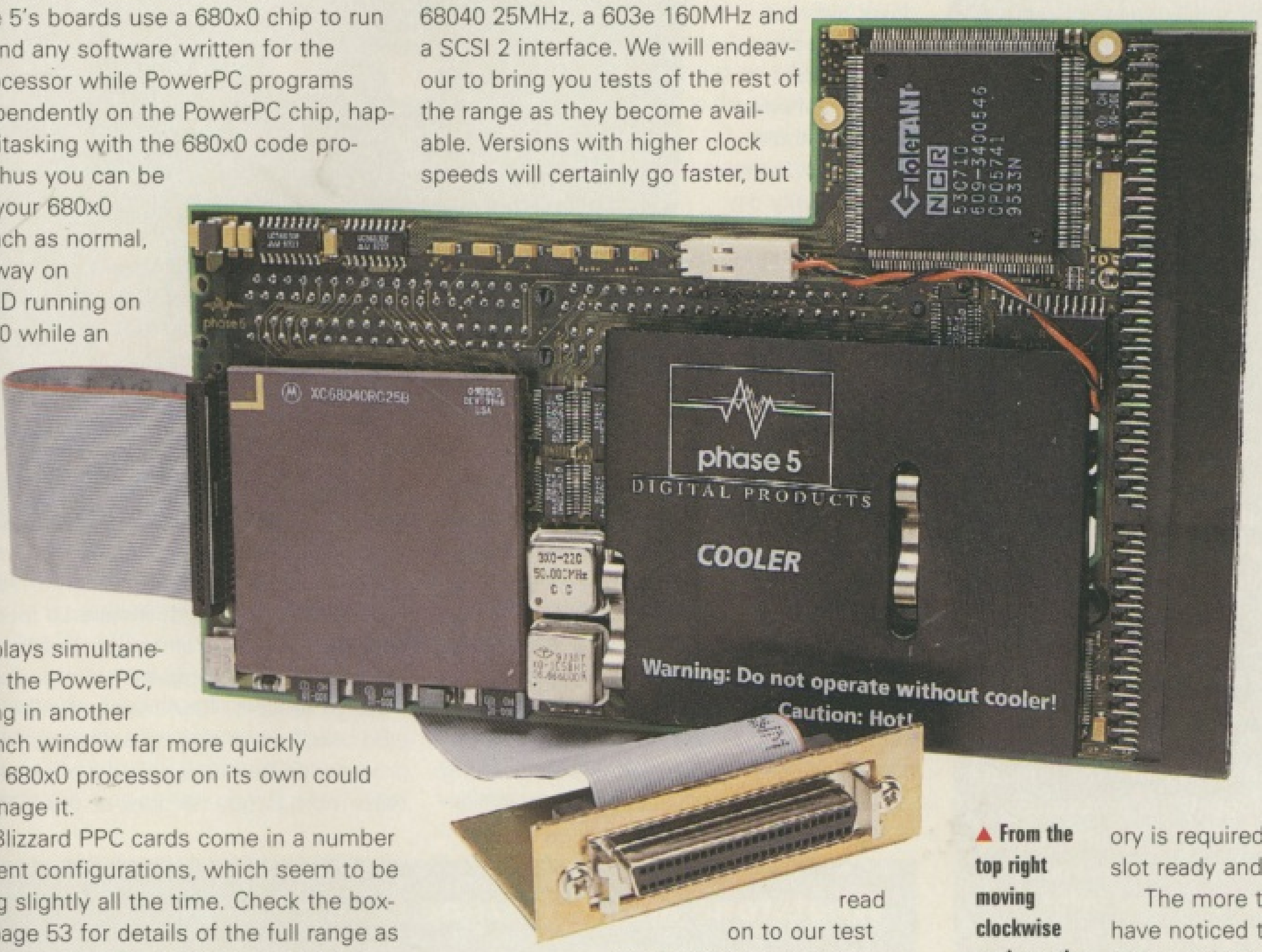
phase 5's boards use a 680x0 chip to run the OS and any software written for the older processor while PowerPC programs run independently on the PowerPC chip, happily multitasking with the 680x0 code programs. Thus you can be running your 680x0 Workbench as normal, typing away on CygnusED running on the 680x0 while an MPEG animation plays simultaneously on the PowerPC, displaying in another Workbench window far more quickly than the 680x0 processor on its own could ever manage it.

The Blizzard PPC cards come in a number of different configurations, which seem to be changing slightly all the time. Check the boxout on page 53 for details of the full range as it currently stands. The first release of the card is the variant with a 68040 running at 25MHz and a 603e running at 160MHz. This comes either with or without a fast SCSI 2 interface, although unlike earlier Blizzard boards, the interface is a part of the board rather than an add-on, so decide whether you want it before you choose which to buy.

Faster versions of the PPC chip will be shipping over the coming weeks, but expect delays on a version with the 68060 CPU, as phase 5 are having problems getting these from Motorola at the moment.

Bring on the card

The card we have in for testing has a full 68040 25MHz, a 603e 160MHz and a SCSI 2 interface. We will endeavour to bring you tests of the rest of the range as they become available. Versions with higher clock speeds will certainly go faster, but read on to our test results and you will see that even in this 'low end' configuration, this card is a real monster. If you want a rough guide to how much faster the 200MHz and 240MHz 603e cards will go, a good estimate can be made based on relative clock speeds.



▲ From the top right moving clockwise we have: the glue logic chip, the PPC chip covered with a massive heat sink, the SCSI connector and the 040.

The BlizzardPPC card is probably the most crammed accelerator card that you are likely to see. A real feat of engineering, the card comes with two SIMM slots, two CPUs, a header for the BlizzardVision Permedia 2 graphics card, an optional SCSI header, and a large black metal slab which encloses and shields several of the chips, acts as a heatsink for the 603e PowerPC CPU, and also ducts air blown in by a miniature slimline fan.

Software is installed and the board fitted as with any other. Although recommended for use in A1200Ts, phase 5 do state that it can be used in a desktop case if proper shielding precautions are taken. We found that with the trapdoor left off and the A1200 resting clear of the desk on extra feet, the board ran fine in a desktop model. However the power drain of the two CPUs necessitates an uprated power supply – with the standard weedy A1200 supply, we suffered regular crashes. The 68060 version should be more reliable in this configuration as it runs cooler than the 68040 and consumes less power. The Blizzard card differs from the CyberstormPPC in one very noticeable respect; while the Cyberstorm demands a pair of matched SIMMs for memory, the Blizzard needs just one. This makes fitting memory to the card a lot more hassle free, and will certainly be beneficial to people upgrading from an older accelerator who already have a SIMM of sufficient size. If more memory is required later, there is a second SIMM slot ready and waiting.

The more technical amongst you will have noticed that this indicated the Blizzard 603e card runs 32 bit wide memory access instead of the 64 bit wide access of the Cyberstorm 604 card. This will be a brake on performance, but the proof is in the testing and as you can see from the charts, the Blizzard cards certainly performs well. Memory access may be well below the Cyberstorm level, but it's a long way from embarassing itself.

There are two pieces of software we consider crucial for this card, the PPC.library and

ible package yet to appear is that from the datatype guru, Andreas Kleinert. The latest versions of his akJFIF and akPNG datatypes provide PPC support – and very well implemented it is, too. Loading a 3Mb was boosted from 8 seconds on a 25MHz 040 to under 2 seconds on the 160MHz P603. To enable PPC support you must have a registered keyfile, but at only 15DM (about a fiver) this is shareware well worth supporting.

The question on everyone's lips concerning PPC gaming (until PPC Quake arrives that is) is "What is PPC Doom like?" "Pretty good" is the answer. Of the two current versions, VDoomPPC and ZhaDoom, the latter would not work due to the problems with WarpOS.

However, VDoom works perfectly and can knock out up to 21 frames per second on a P603/160. As you can imagine, this makes for an immensely playable game, and VDoom is hardly the most optimised piece of PPC code.



▼ Candy Factory offers realtime image processing for PPC users.

You'll also find plenty of PPC programming and software development tools. Not only are there several C compilers with PPC support, a couple of assemblers, and two different PPC kernals – PowerUp and WarpOS each with their own development material – but, every time you turn your back, a new language appears.

Current offerings include Forth, Prolog, Eiffel and Logo. Now programmers have no excuse for not producing PPC compatible software.

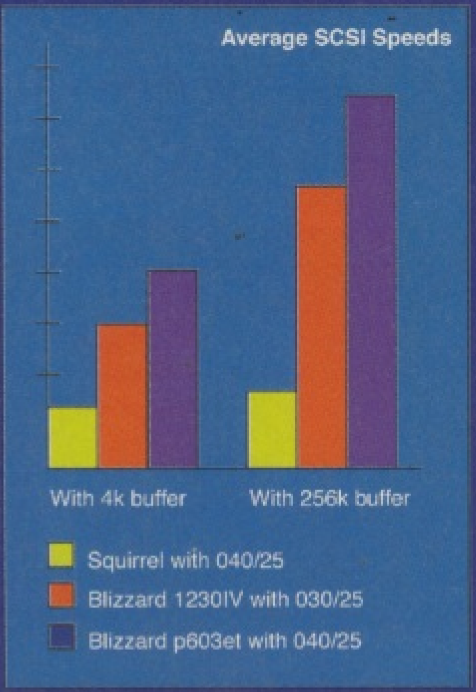
The SCSI interface

Unlike phase 5's earlier A1200 accelerators, the SCSI interface on the Blizzard PPC range is not an optional add-on but an integral part of the board. Hence, the decision of whether to plump for the SCSI version or not has to be made before you buy one – which complicates an already rather difficult choice.

I expect that many who will buy the Blizzard 603e+ (the '+' means the one with the Fast SCSI-II interface) already have a SCSI interface of some variety for their A1200 – perhaps in a earlier Blizzard card or even a Squirrel. How does the PPC's offering compare with these? Well, its faster, obviously. The graph below shows some average data rates achieved by all three interfaces when tested reading from a rather nippy 1GB Jaz drive.

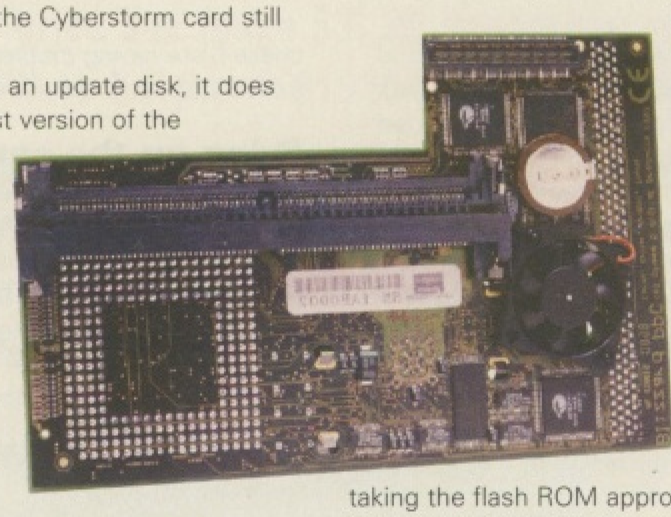
Like all phase 5's interfaces, the PPC features DMA (direct memory access). What this means is the controller on the board can read and write directly to your computer's memory, leaving the processor largely free to do other things. As the graph shows, in our tests the PPC's interface gave an average CPU availability of 63% compared with the Squirrel's 0%, ie; the processor was free for 63% of the duration of the test while the Squirrel completely hogged the processor.

The Blizzard P603e+'s SCSI interface is fast – probably as fast as you'll need. When given a large buffer, it flies (we managed speeds in excess of 3Mb/s from it, and I doubt you will find many SCSI devices that can keep up). The 603e+ reveals that, in fact, the Squirrel is a tortoise.



the CybergraphX system. The first is the program which allows the two CPUs to operate together, whilst the second is a retargettable graphics library used by a large number of the programs and demos on the supplied CD. Unfortunately the software distribution which came with our card is a bit of a mess, with the old CD for the Cyberstorm card still shipping.

Although there is an update disk, it does not contain the latest version of the CybergraphX software with the AGA driver allowing users without a graphics card to use the software. phase 5 should have a new release of the CD any day now, but meantime you'll find CybergraphX AGA on this month's CUCD. The latest PPC.library on the other hand is certainly in the release – in fact it is actually now embedded on the card in a flashROM.



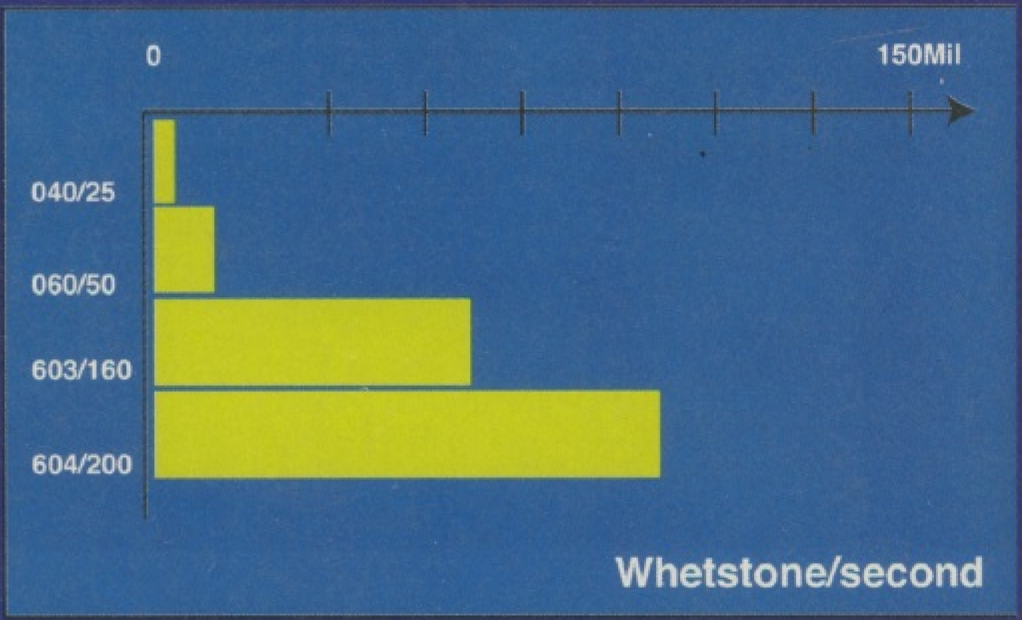
WarpOff

There is an interesting side effect of having the PPC.library in ROM. You may have heard of the dispute between phase 5 and Haage & Partner over the latter's rival kernal to the PPC.library, WarpOS. H&P claim that WarpOS is the best solution as it offers better switching speeds between the two CPUs and makes life easier for programmers, while phase 5 claim that only their system allows compatibility with future developments such as the multi CPU pre\box (see news). While most users might just shrug their shoulders and wonder what all the fuss is about, this dispute has lead to some fairly ugly exchanges, much fuelled by the fundamental incompatibility of the two systems which makes it impossible to open one library while the other one is open. With the PPC.library in ROM being opened at boot-up, no software using WarpOS will currently run on the Blizzard card. Inevitably people at Haage & Partner have accused phase 5 of taking the flash ROM approach to intentionally scupper WarpOS. Wolf Dietrich replied to this recently in the comp.sys.amiga.programmer newsgroup as part of an ongoing debate inspired by a rather one-sided article on the subject in another UK magazine, and while his response didn't answer every question, it did give several good reasons for the move.

Primarily, having the libraries in the flash ROM means a lot fewer set up problems; the Cyberstorm boards inspired a lot of problems, and that was amongst some of the most technically competent Amiga user. Having the flash ROM makes the Blizzard card much more plug and play and far less prone to problems people have found with older more buggy versions of the PPC.library.

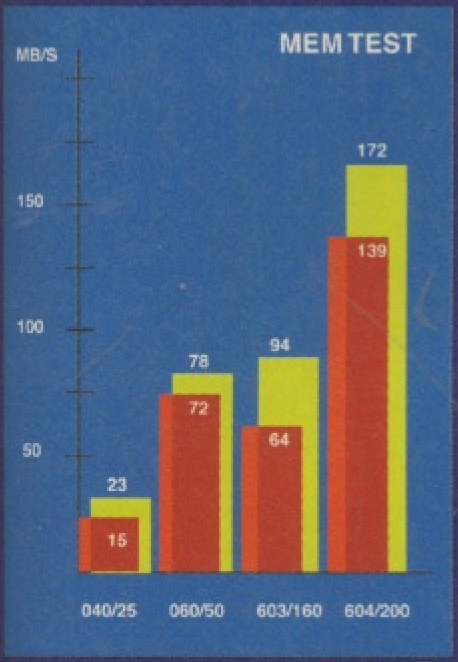
Whetstone and dhrystone speed tests

The whetstone and dhrystone tests both assess CPU performance by repeatedlly executing a set of commonly used instructions, the former floating point, the latter integer. Neither one is a good test of overall performance since both can reside entirely in the CPU cache and both ignore RAM and I/O access speeds. The results also depend on how optimized the compiled code is.



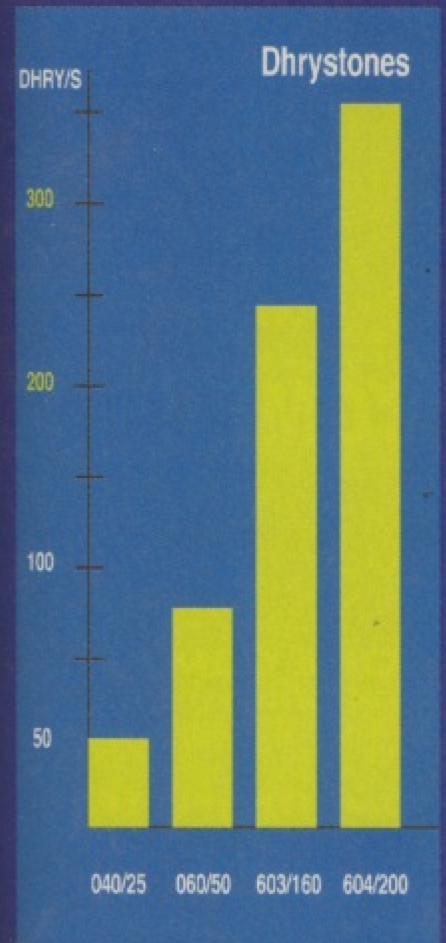
MemTest

The MemTest is a test of memory access speed based on a utility from phase 5. Note that the 604, with its 64bit data bus, is over twice as fast in this test as the 603, which has a 32bit bus.



Of course being in flash ROM, the library can be updated by version checking installers.

Wolf Dietrich told us that phase 5 have decided that their course of action will be to ignore WarpOS. He claimed they will make no effort to ensure their hardware does – or doesn't – work with it. Whether phase 5 should actively support the choice alternative option or whether it is purely down to the software vendor to provide compatibility is arguable. It should be remembered that phase 5 have an agenda – multiprocessing systems such as the pre\box – which Haage & Partner do not share.



Although phase 5 may choose to ignore WarpOS, others have not. Most software so far has used PPC.Library, Stefan Haeser is a notable WarpOS fan, and uses it in his PPC Doom, ZhaDoom, and the PPC version of his excellent rtg.library currently in development. As it stands, these pieces of software will not run on the Blizzard card until Haage and Partner come through with a fix.

There is no doubt that this has put some people off, but fortunately now that Amiga Inc. have settled the hardware issue, they will have to settle the software issue reasonably soon. When they do it should stop the argument, whether they go for p5, H&P or their own solution. Worried purchasers can however rest assured, whatever happens AI have promised it will be compatible with the current hardware, so your purchase is safe. The debate has caused uncertainty amongst developers waiting for a consensus or word from AI on which path to take, but on the flip side the competition has probably inspired better development of both.

Flakey graphics retarg

A1200T owners with graphics cards will be laughing, but those without will have to struggle a little with the currently slightly flakey AGA version of CybergraphX.

Installing it allows programs which normally run on CybergraphX to display properly on a bog standard A1200 AGA chipset. It allows retargetable software to draw to AGA with the same routines it uses to draw to a graphics card, although don't expect the actual output to improve. Plenty of CybergraphX software opens 15 or 16 bit screen displays which is fine for graphics cards but isn't supported in AGA, so they won't work.

We found a couple of applications which partially worked, such as the PPC mandelbrot program Benoit which draws the screen but not the image, although this is generated and can be saved out as an IFF. Like a lot of phase 5's software, this one still needs work on first release, but it does open up a fair bit more software to AGA users. Of course there is plenty of software which doesn't require CybergraphX too.

Catch 22: the software

The thing that sways people to buy something like this is proof that it will give real advantages, and that means having software to run on the PPC side.

Check out the PPC directory on our CD this month where we have collected 100Mb of PowerPC software, including the latest updates from the phase 5 FTP site. Much of the software is developer's stuff, but there is a great assortment of graphics utilities, games and so on. Setting up PPC datatypes, archivers and file viewers can make quite an impressive difference to everyday Workbench use too.

People have worried about the several millisecond switch taken between the two processors, but when that PPC is decoding a JPEG for you in two seconds instead of ten, it isn't much of a penalty. An increasing amount of software uses PPC when available, notably Art Studio, Picture Manager Pro and Elastic Dreams in this issue. TurboPrint and ImageFX 3.0 which we should review next month do the trick, as do the rendering packages Reflections and Tornado 3D, and many more to come.

The real issue at hand is that anyone who wants to jump on the PPC bandwagon now can, and at an extraordinarily good price. A year ago a 68040 would have cost you this much alone. The software is starting to roll in and the kernal issue is going to resolve itself without impacting too badly on the end user. There are questions to be raised about the software currently provided, no doubt, but nothing that stops the board from impressing hugely, and free updates will come.

The 68060 model will appeal to those who want to wait for the best, the 68LC040 version is there but I'm not convinced of the value of saving a few quid for the loss of an FPU. This model offers a superb blend of value and power not to be missed. A real bargain. ■

Andrew Korn & Richard Drummond

PRICES

Blizzard 603e Power Board		Blizzard 603e+ Power Board (SCSI)	
160MHz with 040/25	£245	160MHz with 040/25	£299
160MHz with 060/50	£475	160MHz with 060/50	£525
200MHz with 040/25	£299	200MHz with 040/25	£355
200MHz with 060/50	£529	200MHz with 060/50	£589
250MHz with 040/25	£359	250MHz with 040/25	£415
250MHz with 060/50	£599	250MHz with 060/50	£649

Prices are liable to alter due to variable exchange rates. For current prices contact White Knight.

Blizzard PPC '040/25 and 603/160
Developer: phase 5

System Requirements: A1200 (minimum). Tower converted A1200 (recommended)

Ease of use..88%
Plug and Play makes life a lot easier than before, but still sometimes frustrating

Performance..94%
Not as fast as the A4000 boards but faster than anything else. Excellent SCSI performance

Value for money..................................95%
Excellent. You get PowerPC performance for the price of a 680x0 accelerator

OVERALL
The essential upgrade for all A1200 users
94%

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Star LC24-10/20/200	2.86	2.71	2.51	2.31
COLOUR				
Citizen 224, 240, SWIFT 24/9	8.99	8.84	8.64	8.63
Panasonic KXP2123/2124/2180	8.99	8.84	8.64	8.63
Star LC10/20/100	6.00	5.85	5.65	5.25
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3½" Disk Labels	10.99	Python 5 Joystick	10.99
3½" Disk Cleaning Kit	2.99	Warrior 5 Joystick	10.99
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All Disks Certified 100% *ERROR FREE* & Include *FREE* Labels

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Canon BJ 70 Blk (Pk3) BC1-11BK	7.00	12.50
Canon BJ 70 Col (Pk2) BC1-11C	11.00	10.80
Canon BJ 200/10/30/40 Black	--	16.30
Canon BJC 210/40 Colour	--	19.90
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Epson Stylus 820, Color, II/IIS Black	6.00	16.40
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Epson Stylus Color 400,600 Black	6.00	17.90
Epson Stylus Color 400,600 Colour	10.00	22.00
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HP Deskjet 400,500/10/20/40/50/60 Black	--	21.00
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HP Deskjet 500 Series Black	11.00 for 2 x 40ml Refills
HP Deskjet 500 Series Tri-Colour	12.00 for 12ml of each Col
Star SJ48	8.50 for 2 x 20ml Refills





Wordworth 7

AMIGA MAGAZINE SUPERSTAR

■ Price: £39.99 (upgrade £24.99) ■ Developer: Digita ✆ +44 (0)1395 270273 ■ http://www.digita.com

Digita fire the latest salvo in the Wordprocessor war - only this time they're aiming for a far larger enemy.

Wordworth vs FinalWriter has been one of the enduring stories of the Amiga. Like David and Goliath, Cain and Abel or Tom and Jerry, these two age old protagonists have been hammering away at each other since time immemorial. Each time one comes out with a release, the other has been close on its heels, playing catch up and trying to go one step beyond. Last year Digita packaged Wordworth 6 in the excellent Wordworth office CD, while Softwood introduced DTP style linked text boxes in FinalWriter 97.

This year, Softwood have gone a bit quiet, feeling the pinch as much as any other. Digita on the other hand have come out fighting with an upgrade that quickly matches FinalWriter for the linkable text boxes and then, like a rabid bulldog eyeing up a wolfhound five times its size, takes a pop at the big one, Microsoft Word.

You've probably used one or another version of Wordworth at some time, if you mostly want to know what the differences are, check the boxout on the subject. Checking the list of features does not make it seem all that massively new and impressive, but a few hours typing on the beast and you start to realise how well chosen those upgrades are.

What's new in 7.0

- Linkable text frames
- Auto Spell checking with Word like notifiers
- Snap to grid / align objects
- Quick shapes
- Context sensitive menus
- "cool look" toolbar (optional)
- Improved RTF
- Picture borders
- Improved mouse selection

...and what should be in 8.0

- Decent table support
- Drag and drop configuration
- Drag and drop index/contents creation
- Quick text effects
- Grammar checking
- pdf support

Cool look

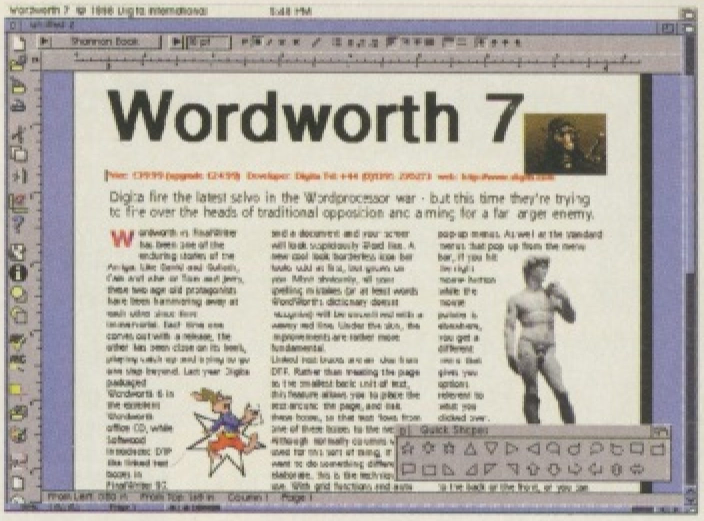
Two of the most obvious changes are visual ones. Load up WW7 and a document and your screen will look suspiciously Word-like. A new "cool look" borderless icon bar looks odd at first, but grows on you. Most obviously, all your spelling mistakes (or at least words Wordworth's dictionary doesn't recognise) will be underlined with a wavey red line. Under the skin, the improvements are rather more fundamental.

Linked text boxes are an idea from DTP. Rather than treating the page as the smallest basic unit of text, this feature allows you to place the text around the page, and link these boxes, so that text flows from one of these boxes to the next. Although normally columns will be used for this sort of thing, if you want to do something different and elaborate, this is the technique to use. With grid functions and auto aligning, this makes Wordworth a pretty meaty layout package, certainly very capable of low level DTP.

New: Quickshapes

An obvious borrowing from Word is the Quickshapes function. This calls up a palette window of basic shapes which can be clicked on and drawn upon the screen. Word's equivalent has nested sub menus for each shape which gives you a lot more choice, but then you're unlikely to need that much. It would have been nice to see Wordworth's text effects done similarly, but the same old click and hope front end remains. This is an area which Wordworth is a long way behind the power of Word, though you have to wonder whether Word's depth is needed for a feature most users will only use once or twice.

A more subtle improvement, but one I find superb, is the introduction of context sensitive pop-up menus. As well as the standard menus that pop up from the menu bar, if you hit the right mouse button while the mouse pointer is elsewhere, you get a different menu that gives you options relevent to what you clicked over. Click over an image object and you can: cut; copy, paste or duplicate it, send it to the back or the front, or call up the object information window used to control the output. Right clicking over an underlined spelling mistake brings up a mini pop up with a group of suggestions.



▲ As this screenshot shows, Wordworth 7 is capable of some fairly sophisticated page layout, a nice bonus for a Wordprocessor!

Lining itself up against Word is certainly brave. The latest version of Word is huge, packed with features. However, if you cut out from word all the stuff that very few people are ever going to use, it would be a tenth the size and a hell of a lot less clunky to use. Word is in another league when it comes to tables, and text effects, but other than that there isn't so much extra in Word that most people would want. Wordworth does most things easily and quickly and with reasonable stability, although CyberGraphx support is so flaky Wordworth 7 really needs to be used on the Workbench screen under retarg.

I've always been a bit of a Wordworth man in the Wordworth vs FinalWriter contest, but this one seals it for me. With Wordworth 7, Digita have made a realistic stab at challenging Word with a package more powerful than Word 6 in most areas, if a way behind the Office 97 version. It remains beautifully easy to use, and the most comfortable interface of any wordprocessor I've used on any computer. Thanks, Digita. ■

Andrew Korn

WORDWORTH 7

System Requirements: Workbench 2.04, 3 Mb free RAM & hard drive.

Ease of use 93%
Configuration could be better, but a superb compromise between ease and power.

Performance 91%
Everyday tasks perform superbly, but some extras are rather ropey.

Value for money 94%
Great price for such a polished package, good for upgraders too.

OVERALL
Simply brilliant
93%

ArtStudio Pro

■ Price: £44.99 ■ Supplier: Epic Marketing ✆ 0500 131 486

Fancy some organisation for that stack of Corel PhotoCDs? A handy organisational tool would help, and Motion Studios figure they've got the solution in ArtStudio Professional.

ArtStudio Pro follows last year's 2.5 revision, which to put it mildly needed a lot of work. As a cataloguer it was nothing special, and it was too difficult to work with and too limited to be of use as an entry-level image manipulation tool.

What's new, Doc?

ArtStudio's interface has been cleaned up and improved quite a bit. The catalog is much easier to navigate now, the pop-up menus are easy to use (and remarkably similar to PMPro's), and the formerly impossible and impractical image processing effects are now more accessible.

CyberGraphX support is greatly expanded, to the point where 24 bit operations are possible. You can configure almost any graphics board or chipset to be the view module, or simply bring up a new window on the ArtStudio screen. The new viewer is fast for most formats, and you can define external programs for any format you see fit. Notably, ArtStudio's internal viewer did not handle HAM images on CyberGraphX well, something PMPro was able to do without too much trouble.

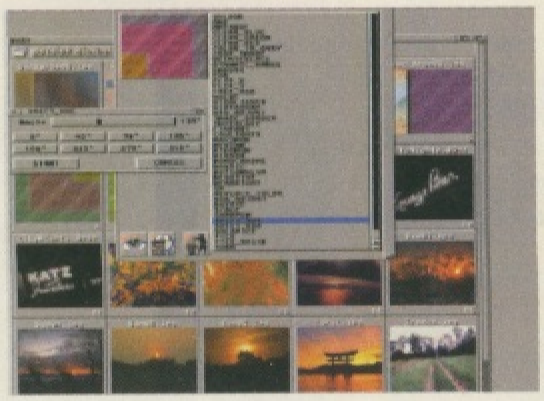
The PPC optimizations are welcome – I found myself blowing through effects like convolves in very little time. Image loading and saving is something of a mixed bag – at times it is impressively quick, at others it is bogged down far slower than even the regular 68K should have been, without any good reason. PMPro catalogues can be imported directly, without incident, even from the new V5. ArtStudio Pro comes with an HTML export, and I have to honestly say I am ambivalent between the output it and PMPro provide – while not identical, they are functionally equivalent.

The new drag and drop is handy but could have been moreso – it's somewhat confusing since it's not as simple as just moving a thumbnail from one location to another in the catalogue. I found it most useful for putting a picture into the image processing window. With some patience, you can use the drag and drop along with multiple project windows to re-order a catalogue.

If possible, you're better off sticking with the predefined sort criteria (alphabetical by name, date, size, resolution, etc.)



▲ A colorful ArtStudio catalogue screen.



◄ ArtStudio's operators, used for simple image processing.

What's not

Unfortunately, too much has stayed the same, or at best hasn't caught up with other programs, like PMPro. The documentation is completely inadequate, and is horrendously translated. The AmigaGuide file is just as badly constructed as it was under V2.5, with broken links all over the place.

ArtStudio does have a universal loader, meaning you don't have to specify filetypes when bringing in images and can load up a whole mess of pictures at once without caring about their source. The program does have an expanded variety of supported formats, but the problem is that they don't all seem to be working properly. MPEG and Anim files continue to work fine, but AVI and QuickTime support did not seem to function properly. You can link in external viewers to see these animations, if you can ever get them in place to begin with.

The image processing system is a quantum leap above the previous ArtStudio but that still leaves a lot to be desired. There is no visible way to carry out any sort of batch operations and no preview. Even image conversion is far more of a chore than it should be. While you can batch that, at least, by marking a group of images and selecting 'Mark – Convert', you have to predefine the output format in the 'LSV' preferences (Load-Save-View). The LSV menu is only brought up from the title bar, and cannot be left open – it halts the rest of the program's operation.

You have to select the output format and close this window each time you change output formats. This is the sort of thing that should be handled interactively, and it is, by any other reasonably well crafted program.

Who is it for?

A program like this is generally targeted at the hobby user market. It should be fun and easy to use. Unfortunately, it's not – between the ridiculous documentation and the difficulties in doing anything other than bringing up a bunch of thumbnails in a standalone window, 'fun' is pretty much removed from the equation. And if you're not fun to use, you'd better be powerful to make up for it, but that's not the case here.

For roughly the same price as PMPro, ArtStudio is a poor substitute. The upgrades are more reasonably priced but still aren't offering much in the way of real improvement – most of this update, aside from offering PPC support, is simply correcting the more egregious errors of 2.5's design. ■

Jaosn Compton

ARTSTUDIO PRO

System Requirements: AmigaOS 2.1, hard drive, 4 Megs RAM

Ease of use 73%
The interface is better than before but still clumsy at times.

Performance 78%
Decent enough for catalogueing but not worth using for anything else.

Value for money 50%
Doesn't stack up to PMPro at the same price.

OVERALL
Under-delivers on features, pales before the competition. **69**

Picture Manager Pro 5

■ Price: £39.95 ■ Distributor: Blittersoft ✆ 01908 261 466

The second picture filer for review this month offers a lot more than just creation of a few thumbnail banks.

Picture Manager Pro 5 is a graphics catalogeuing program. On the surface, this isn't a wildly gripping concept. Do many people have hard drives so overflowing with images that they can't keep them straight? Actually, especially in this era of extremely cheap CD-ROMs, the answer seems to be "yes", and hence there are a variety of catalogue programs out there. But once you get past throwing some thumbnails in a window, which you can click to view the full image, what then? Surely there's something else for your £40, or you may as well not bother. Fortunately, there is more on offer.

For starters, it does its basic job very well. Setting up a catalogue is a painless process – you can select a full directory or a group of files, or pull directly from a PhotoCD or ScanQuix scanner. Once you set up this batch, the program analyses the images and brings up a preview window, where you can browse your selections before committing them to the catalogue. The thumbnails are speedily generated, and you're on your way to organisational heaven, if that's all you're interested in.

Ja, Einstellungen!

There's good news and bad news about Picture Manager Pro 5's interface.

The good news is that once you get the hang of them, the titlebar menus and popup menu (click on an image and your options appear) are very easy to use, and the online manual does a good job of explaining each function in detail. The ability to launch and load your image directly into a paint program (by default, PPaint and DPaint IV are supported) is welcome, and a very good use of ARexx. If you care to learn the keyboard shortcuts, they will increase your productivity a great deal, and are reasonably logical.

The bad news is that there are also QuickMenus, little windows which contain handy buttons to call virtually every function you'll ever use in Picture Manager Pro. Why is this bad news? Because this is the one area of the program the author forgot to translate from German, so everything, right down to the little help graphics which describe all the buttons, are going to be a challenge to decipher.

On a more neutral note, the interface isn't as concerned with large friendly buttons as ArtStudio has become. In ArtStudio's case, however, a major revamp of the interface was necessary. For Picture Manager Pro, keeping it simple has worked well so far.

Wait, there's more!

Picture Manager Pro 5 doubles as a batch image processor. It makes sense – you've got a group of pictures in a visually organised space and can mark them, why not take the next step and do more than just view them?

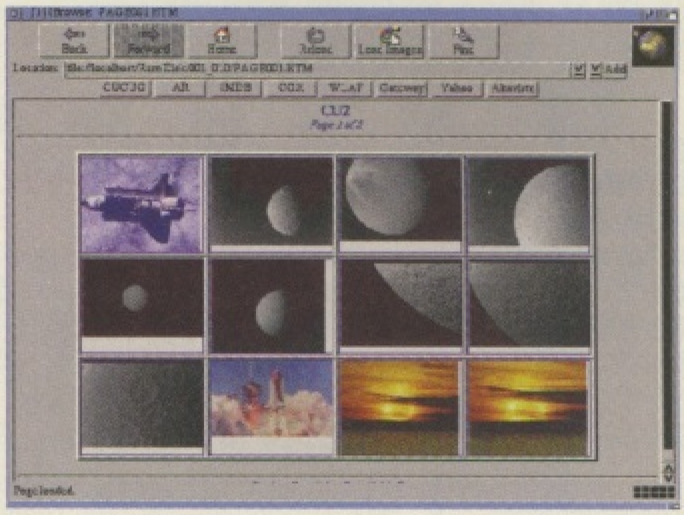
Version 5 greatly expands the program's capabilities in this department. Now you can not only do batch conversions from one format to another, but apply up to five other effects at the same time: blur them, bring up brightness, tone down the red – it's up to you. This is immensely useful and a very logical way to go about batching effects. Too bad about the arbitrary 5 effect limit. My only other complaint is that the preview window is nice to have but clumsily handled – it's very easy to apply effects by mistake that you had only intended to preview, and the previews seem to be cumulative (rather than automatically undoing, so you can experiment with the right level of brightness and so forth).

Other goodies

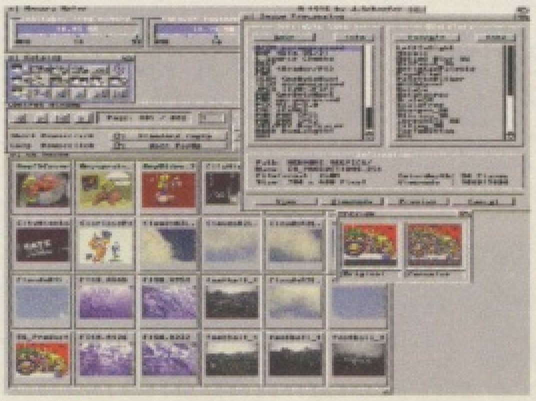
Picture Manager Pro sets itself apart from the rest of the pack in part due to its ease of use and capable functionality.

Its import/export abilities are quite expansive (and yes, they sprung for a real GIF license, it seems) and there's usually no doubt as to what button to press next. The single best new feature would have to be the HTML catalogue generation. Now you can share your collections with the rest of the world online – just a couple of quick mouse clicks and then Picture Manager Pro churns out web pages with thumbnails and links to the larger images.

I was stunned at how simple, and fast, this was. Of course, you may want to edit the pages afterwards – unless you want all of them to say "Buy Picture Manager Pro, it's great" – but the time you save having Picture Manager Pro do the graphical layout does more than make up for all of the self promotion.



▲ An HTML catalogue, automatically created with a button click.



▼ PM Pro's image processing capabilities add a nice touch.

Picture Manager Pro also has the very handy capability to change catalogue sizes on the fly. If you decide you want to switch to small greyscale thumbnails to save disk and screen space, or because it's a collection of images you're not very interested in the detail of, the change is easy enough to make. The same applies the other way – if it's a sequence of very similar images and you decide you need large, colourful index pages, the transition is as simple.

PPC support has also been added. It's not active full-time – the PPC is called during conversion and image processing functions, mainly, which saves you some time. The main catalogue screen is snappy enough not to need the extra juice of the PPC, but more speed is always better.

Picture Manager Pro is in an interesting niche – you could use it just to catalogue images, but you'd be missing out. On the other hand, you could use it for batch processing and hardly give a toss what the index looks like. Either way, it's a very capable program. ■

Jason Compton

PICTURE MANAGER PRO 5

System Requirements: OS 2.1, 3 Megs Fast RAM, hard drive. Recommended: 020, 8 Megs RAM

Ease of use 88%
Quite easy to navigate, albeit sparse on big friendly icons.

Performance 93%
Hot stuff. PPC enhancements are nice to have.

Value for money 90%
With the new features, a good deal.

OVERALL
Somewhere between a simple cataloguer and an image processor, impressive at both.

90%

Pace 56 Modem

■ **Price: £129.99**

■ **Supplier: Active Technologies +44 1325 460116**

In the red corner, a challenger for the 56K modem title from the UK...

This is a 56K modem with voice and fax features. The price is higher than many 56K modems, but this is a high quality model with an impressive range of features.

The Pace has a smart black case with feet on the right side, so you can use it vertically or just flat on its back. The status LEDs are bright and clearly labelled in plain English. All connectors are on the back, there is a microphone on top and the left side sports a volume control and speakerphone button.



▲ Black and moody with clearly marked LEDs.

AMIGA SUPERSTAR

The speakerphone is of a high quality and needs no software support from the computer, using either the built in microphone and speaker or the supplied headset. UK CallerID means you can see the number calling you before you answer the phone. Speed is what 56K modems are all about, and this one has got plenty. On my Nynex phone line it was as fast as any other modem I have used, and on my BT one it was the fastest. Connect speeds of 46000 are excellent for these lines, and the modem never faded, dropped the line or retrained to a lower speed during a connection. I was most impressed with it.

The Pace 56 Voice is a high quality modem, giving fast reliable connections and a range of extra features. The price is higher than others, but you get a lot for your money and you'll soon save that on phone bills. ■

Neil Bothwick

PACE 56 VOICE MODEM

System Requirements: Any Amiga

Ease of use 95%
Plug it in and go online. Nothing else to do.

Performance 94%
It's fast, and reliable, what more can you ask from a high speed modem?

Value for money 89%
This is one of the most expensive 56K modems around. Whilst it is fast, the value also partly depends on whether you want or need some of the extra features.

OVERALL
A high quality modem, with some potentially useful extra features.

92%

Dynamode Modem

■ **Price: £99.99**

■ **Supplier: Online PD & +44 1704 834335**

And in the blue corner, weighing in at £30 under, it's the Dynamode...

The Dynamode is a 56K data/fax/voice modem. This is a fairly basic modem, based on standard far eastern components, but the price is quite attractive.

The model sports the usual features for a budget modem. The case is very compact, with a power switch on top and sockets for microphone and earphone on the side. All other connectors are behind a flap on the back. The front has the usual row of LED indicators behind a smoked panel.

You get a printed manual containing basic installation instructions and a reference section on the full set of modem commands. You really don't need the manual to get started, just switch off your Amiga, plug in the modem and switch back on. Unfortunately this modem just doesn't cut it in the crucial area of speed. On a line that gave 46000 connections every time with the Pace I got between 38000 and 42000.

Speeds on the other test line were equally disappointing. It also suffered from fading and dropped lines. In fairness, the hardware at the ISP end had been updated between the two reviews, but my own modem didn't have anything like these problems when used at the same time. I used this modem when writing last month's STFax review, and it worked faultlessly with the fax and voice-mail facilities of STFax.

While this modem is £30 cheaper than the Pace, the differences show. If you really can't afford the extra, it may be worth considering the Dynamode, but you will pay more in the long run through longer download times. It depends how long you plan to be online whether it's worth it or not. That's the way it goes with modems! ■

Neil Bothwick



▲ Attractively cheap, but can the Dynamode match the Pace 56?

What is 56K?

56K refers to the maximum theoretical speed of the modem (56,000 bits per second). On a good quality phone line you could expect to get a connection speed of around 45,000bps. The quality, age and length of the connection between your phone and the local exchange is the critical part.

Both of these modems use the 'K56 Flex' system, an interim protocol that will be upgradable to higher rates in the future.

DYNAMODE MODEM

System Requirements: Any Amiga

Ease of use 90%
As with most modems, you plug in and go. It is supplied with a separate installation guide.

Performance 70%
Compared with other K56 modems it was disappointingly slow

Value for money 85%
A fairly low price, but performance to match.

OVERALL
At the end of the day, speed is what matters, and this modem didn't deliver enough.

75%

Latest CD Games



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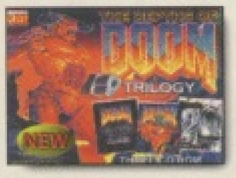
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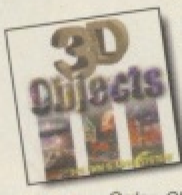
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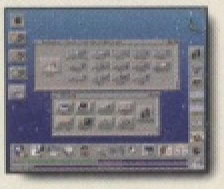
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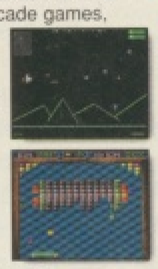
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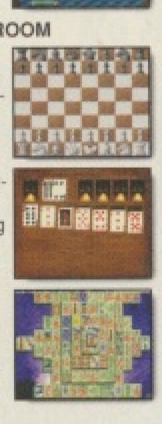
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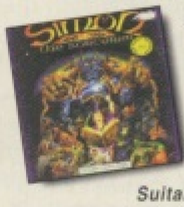
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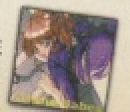


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Elastic Dreams

■ **Price: £49.95** ■ **Developers: Motion Studios/Titan** ■ **Supplier: Epic Marketing © 01793 490 988**

Ever wished you had a smaller nose, a bigger chin and not-so-sticky-out ears? Now you can, thanks to this new PowerPC Power Goo clone.

This is one of the first major Amiga PowerPC applications to have appeared, and while it's primarily a toy, it's just the thing to show off your new PPC card. If you think it looks familiar you'd be right. It's a blatant rip-off from a Mac application called Kai's Power Goo, a point and click warping tool. Elastic Dreams comes with versions for both 680x0 and PPC Amigas.



Quirky front end

As you can see from the screenshots, Elastic Dreams does not follow the traditions of Amiga Software. Those who believe strongly in a universal look and feel will no doubt be shocked by probably the most non standard front end of any piece of Amiga software, but there is logic behind it.

Firstly, it makes it very clear what Elastic Dreams does; it looks so reminiscent of Power Goo that anyone who has used the latter will know what to expect. Secondly, it lays out the tools in the most ergonomically satisfying positions, and thirdly it looks cool – not a bad aim for a piece of software which is intended to be fun.

Elastic Dreams is broadly split into three control screens. These are the Manager screen, the Composer screen and the Elastic screen. Each is a high resolution bitmap of the control panel, with gadgets such as sliders, buttons and listviews all presented in their own rather polished way. It may not look Amiga, but it certainly looks impressive; this is a piece of software which takes being fun seriously. NTSC screenmode users should watch out though, in an NTSC mode you'll lose a bit of the bottom of the screen. No gadgets are completely obscured, but it still looks a bit ugly.

The options screen is where file access takes place. It is also where you can set parameters such as anti-aliasing and smoothing. You can even choose one of several gorgeous texture maps for the control panel fascia. Pressing F10 in here opens a further options screen, which allows you a few more in depth choices such as JPEG output quality settings and save file type – loading is done automatically with over 50 file types recognised. There is also support for output via TurboPrint or input via ScanQuix.

Getting into the Goo

The other two screens are where the real action takes place. The composer screen allows two images to be mixed together in a far more subtle fashion than that offered by a standard rub through effect in a paint package. One of the two source images is transferred to the main window, and a start position marker placed in the other source image window. You can then paint the second image over the first, thus you could paint in the eyes from one face onto another. If you didn't place the marker perfectly, then you can click on the move gadget and drag the overlay around. Other options let you smear the second image into the first to blend it in better, and a transparency slider allows you to make the overlay as subtle or opaque as you like (an option Kai would do well to note of).

AMIGA MAGAZINE SUPERSTAR

Bend it, stretch it

The Elastic screen has a single display window, as it only works on one image at a time. Beneath the central window is a film strip, which is where animation sequences are constructed. Beside the window are buttons for the various bizarre surgical proce-



▲ A typical shot of our fearless leader, Tony... before his morning cup of coffee.

dures you can paint onto any picture you load in. Each offers a different way of shuffling the pixels in the image as you draw across it. The Move option drags the group of pixels under the brush, Wipe pushes pixels out of the way and Smear blends the pixels. Below these is a series of differently sized brushes to choose from.

To the right of the screen, up and down arrow gadgets allow you to select an image warping function which can be applied to a varying degree by moving a slider gadget. These are a great bunch of filters, if sometimes a little extreme, and seem to be the main beneficiary of PPC.

There are certain ways in which Elastic Dreams is frustrating. The range of options in the Goo window of Power Goo is larger than those in its Amiga cousin, and while Elastic Dreams is more efficient in its layout, it does miss some of Kai's wider range of options. The more powerful processing filters make up for this, but a Power Goo veteren will miss some things.

Elastic Dreams tempts you to do more than you do on Power Goo. It is something that dawned on me slowly, but the more I used it, the more I realised that Elastic Dreams is a lot more powerful. Little tweaks such as the brush sizes, the transparency settings and the image format settings hint that this is a program which is actually aimed at people who know what a pixel is. As Elastic Dreams renders the image internally, it is possible to work on larger images than the display window resolution. Elastic Dreams is good enough to use as a professional graphics tool, if it so inspires you.

And there's more...

One area where Motion Studios loses to Kai is in the sample images. Elastic Dreams comes with just three pictures. On the other hand, Motion Studios have packed a lot of other bits and pieces on their disk including a directory of image processing software.

This small collection consists of a file converter, an image displayer and an image effects processor. Anyone familiar with Art Studio will recognise this as the same suite of image processing extras that uses. Even though the installer doesn't work properly and the image processors are pretty simplistic, but they do what they are meant to, and if your Amiga is fitted with a PPC card, they do it very quickly indeed.

It looks like it would have been very easy to integrate the routines from the image processor into Elastic Dreams itself, but this hasn't been done. The lister in the Elastic window could handle the front end, and the results of the process could be seen immediately in the main display window. Hopefully



▲ **Transport unwanted freelance sub-editors to the surface of Mars with a quick squiggle of the mouse.**

we'll see integration of this sort in Elastic Dreams 2, but meanwhile at least you get a chunk of Art Studio thrown into the bargain.

This is a piece of high end software and a high end machine is a definite requirement. On a PPC equipped machine, the effects fly, but there is heavy screen work to be done. AGA causes the processing to lag very noticeably behind the brush, even with a Blizzard PPC card to back it up: no problem on the composer screen, but it limits the useability.

With a graphics card Elastic Dreams is great on an '040 or above, but this is certainly a product which loves PPC. On my 200MHz PPC604 and Cybervision 64/3D graphics card Elastic Dreams is lovely, although there is certainly still room for improvement in the gooing speed that fuller PPC support could give. If you check the PPC drawer on this month's CD, you will find a demo of it which will show you exactly how well it runs on your computer, even if you do not have a PPC.

Let me make no bones about this, there are things about Elastic Dreams that make me wish the programmers had spent another month or two on it. Unlike most cases where I feel this, in this case it is because Elastic Dreams is so good it makes you hungry for more.

It is hugely gratifying to see a piece of Amiga software take on a legend from another platform at its own game – and in most areas win. ■

Andrew Korn

Animation antics

As the image can be transferred between the main screen and the film strip images at will, creating animations is simplicity itself. Start with an image and click the appropriate arrow gadget to put it in film strip one. Change it slightly and transfer it to strip two. Change it again, and so on.

Once your animation is finished, you hit play to watch it go, and choose the speed with a slider. You can save the animation using the built in animation format, or as a standard Anim5 file for playback in any animation player. Although the animation features are simple in the extreme to use, they aren't terribly powerful, so the Anim5 save option should be a useful one. Moving the animation into a proper editor allows many more editing options.











ELASTIC DREAMS

SYSTEM REQUIREMENTS:
68030 or better, Workbench 3.0, 8Mb RAM, hard drive, PPC supported.

Ease of use...93%
You'll pick up the basic functions in minutes, although extras aren't so polished.

Performance...92%
Not as fast as it could be in all areas, but great results.

Value for money...88%
Not cheap if you think it's a toy, a bargain if you think it's graphics manipulation software.

OVERALL
Not a rival for ImageFX but makes graphics great fun

92%

Fusion 3.1

■ Price: £49.95 ■ Supplier: Blittersoft © 01908 261 466

AMIGA MAGAZINE SUPERSTAR

If you're serious about Mac emulation, you may find Shapeshifter's lack of MacOS8 support too limiting. Enter Fusion 3.1...

Macs are funny old things. They can drive you mad but even the most die-hard Amiga fan should be able to find at least a few redeeming features in there somewhere, even if it's just to use some of the applications that have never made it to the Amiga. We gave you Shapeshifter last month, but if you want the latest in Mac emulation, Fusion 3.1 is the way to go. It's getting dangerously close to a year since Shapeshifter was updated, so Fusion is the emulator with momentum right now, even though the eagerly anticipated PowerPC version is on hold pending the completion of some other projects.

Since 2.1, there have been two major types of change. The first difference is that Fusion's MacOS 8 support has been expanded (Shapeshifter is limited to MacOS 7.x).

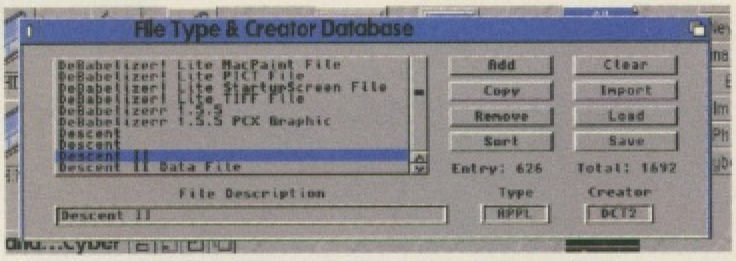
MacOS8: is it worth it?

Unconfirmed reports say it was to be released as MacOS 7.7 but fell prey to full version number inflation (Fusion 2.1 to 3 is arguably a mirror image of that inflation). Even so, MacOS seems to have finally caught up in a few key areas. It now does some multi-threading, allowing the desktop to be doing more than one thing at a time (Amiga users got this with the advent of DOpus 5).

Also, MacOS8 is a little more tolerant of file types it doesn't recognise. There's a program called 'Easy Open' which lets you get through to files even if they don't have an official Mac 'creator'. Netscape and Internet Explorer are being included with the OS these days, and Java support is now built in to the OS.

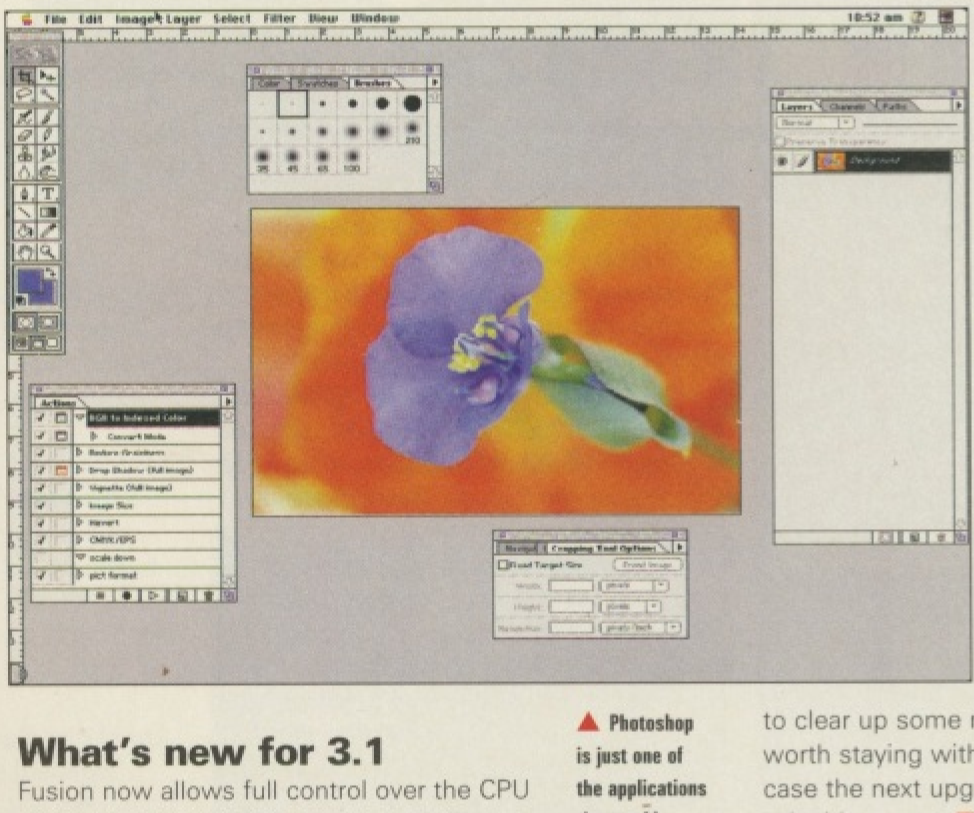
MacOS 8 leaves some older 680x0 Macs out in the cold – including Shapeshifter. Fusion is now the only Mac emulation option if you want to stay with the newest MacOS (8.1 at the time of this writing, which Fusion has been fixed to support).

Fusion now allows the use of virtual memory on the Mac side, and you're going to need it. MacOS8 requires 12Mb RAM with 20Mb of virtual memory.



▲ Pesky Mac file types can be assigned to files during transfer.

The other updates are less dramatic but just as welcome: miscellaneous bugfixes and streamlined operations which make using Fusion even easier.



▲ Photoshop is just one of the applications that could tempt you to indulge in a quick emulation session.

What's new for 3.1

Fusion now allows full control over the CPU cache from the configuration menu. This allows you to experiment for greater speed if you're using an 060 (by default, Fusion turns off most 060 caches for safety since Mac software doesn't expect to see an 060 running in full glory). Experimenting can be dangerous, however, and could cause the Mac side to crash at a very inopportune moment.

The ICP system has been much improved. This is the part of Fusion which has left Shapeshifter in the dust since day one. It's a very neat way to access Mac partitions from the Amiga side. Now, you can assign Mac file creator tags on the fly as you copy files across, and an annoying bug has been fixed. Fusion comes with a large database of common file types, and new ones can be added very easily.

In earlier versions, if you had an AmigaDOS lock on the Mac partition when shutting down the Mac (say, an open DOpus lister of the Mac drive) Fusion could take forever to fully quit until you realised the error – and even then sometimes the machine would crash. Now, Fusion checks for this sort of thing and tells you which drives are being held up.

CD support has been improved according to the docs, although I only every had one problem with 2.1 and a particularly demonic Mac CD (which still doesn't seem to be fully corrected). Some of the stranger GUI trappings of the Fusion configuration screen have been cleaned up. Little niceties, like a three second boot delay to allow you to disable extensions on the Mac side, and improved SCSI support round off the update. While not everyone needs to go to MacOS 8 (I'm still not fully convinced by it myself), Fusion 3.1 takes care of a number of niggling problems and is a welcome improvement. It continues to be a fairly priced piece of software, and even if present users have no interest in OS8, the £8 upgrade is worth it to clear up some minor headaches. It's also worth staying with the current version in case the next upgrade has something more valuable to you. ■

Jason Compton

FUSION

System Requirements: AmigaOS 2.1, 020, 8Mb RAM, hard drive, Mac OS and ROM

Ease of use 90%
Fusion's config screen is still a little weird but more manageable now.

Performance 94%
Just about everything you could want in a Mac emulator these days, except PowerPC support.

Value for money 88%
Shapeshifter is cheaper but Fusion is better supported. The upgrade is a good deal.

OVERALL
Keeping pace with Apple, Fusion is tops in Mac emulation these days. **92%**

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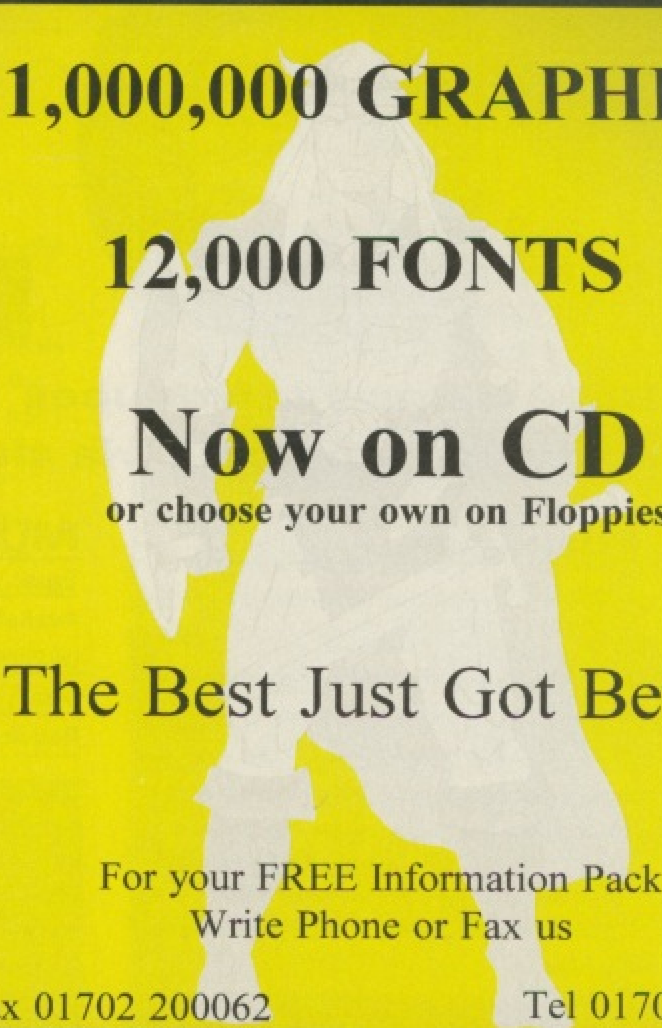
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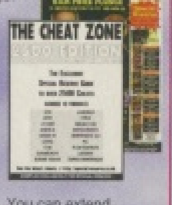
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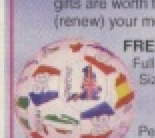
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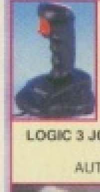
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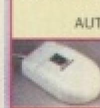
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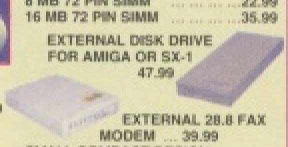
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PD.net

PD.net

Dave Stroud introduces our brand new feature on PD software available via the Internet.

Push Push

Type: Game

Available from: Aminet: game/think/push-push.lha

Size: 194K

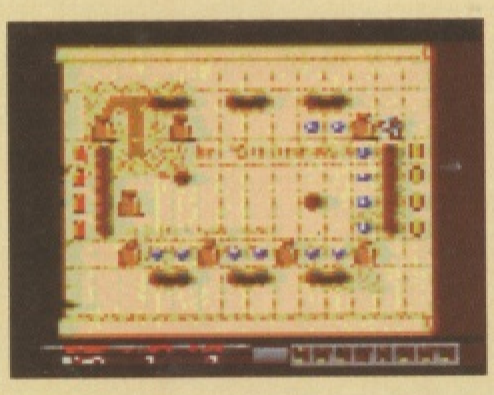
Requirements: Any Amiga, 1Mb RAM

Push Push is a lovely little puzzler written in Blitz Basic 2 by Luigi Recantese. The first thing you should do after loading it is nothing. Just sit back and watch the demo kick in. You'll soon get the idea.

You control your character's movement over a playing grid using the joystick. The thing is, he (she/it?) doesn't stop walking unless he walks into a sack. Or falls down a hole and dies. "A sack you say?" Indeed. Once he's stopped by a sack, hold down the fire button and listen to the counter tick up. Let go of the fire button, and you push the sack the number of squares indicated by the counter.

The aim appears to be to clear the screen of the blue "gems", by pushing sacks over them. To make it a little harder, there are holes to fall down, special objects like paper and re-directing squares, and the sacks bounce off other sacks if you push them too hard, and kill you if you're not careful.

The lack of instructions means some features of Push Push go unexplained – not that it matters that much. Push Push will still manage to keep you occupied for a while, even if you can't figure out why it is your character sneezes occasionally instead of pushing a sack, or what the mysteriously appearing brown objects are. ★★★



MUIVideo 2.13

Type: Video database

Available from: Aminet: biz/dbase/MUIVideo_213.lha

Size: 166K

Requirements: MUI 3.0+, OS 3.0

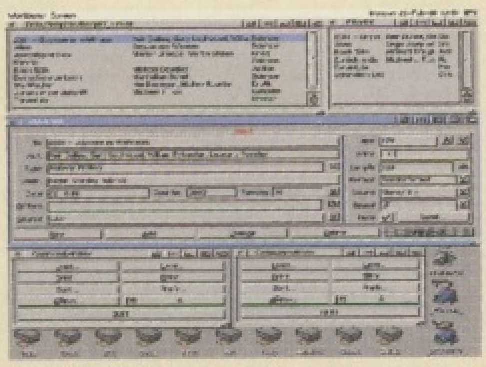
Christoph Kirsch's MUIVideo has reached version 2.13, and continues to expand. If your video collection is doing likewise, this program could be the answer to your film-finding needs.

Or, if like me, you don't have too many videos but you still can't decide which one to watch for the umpteenth time, MUIVideo can still be of assistance. With dozens of input fields, it could take you a while to catalogue even a modest video collection, but you should only have to do it once.

After that, you'll be able to find what you're looking for with ease. Through the "Filter" window, you can ask MUIVideo to list films matching your every requirement from a list of actors that you would (or wouldn't, for that matter) like to see, through categories, rankings and dates, to picture and sound formats.

Say goodbye to the days of rummaging through unmarked video cassettes and wearing out your VCR as you search for that half-hour episode of Red Dwarf you taped ten years ago. Instead, hand the job of memorising your VHS collection over to MUIVideo.

You can even add comments and link pictures to specific database records, just in case you forget what all those films that you taped last Christmas were all about. ★★★★★



ABackup 5.2

Type: Backup utility

From: Aminet: disk/backup/abackup.lha

Size: 388K

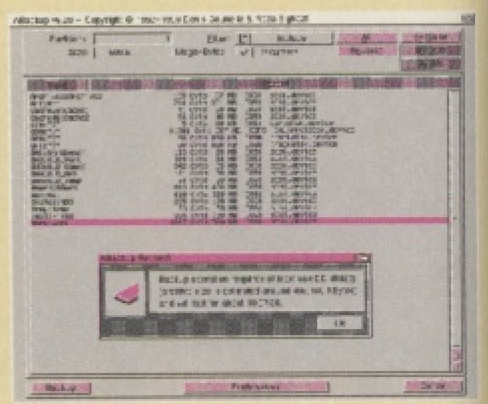
Requirements: Kickstart 37+, 1Mb RAM

Version 5.2 of the popular backup utility has fixed a few bugs from earlier versions, and added support for backing up to removable media like Syquest, Jaz and Zip disks. This means you no longer need to sit by your Amiga with a stack of floppy disks, subjecting yourself to RSI as you insert and remove floppies every couple of minutes. Hallelujah!

Offering full and selective backup operations, as well as optional data compression using an external system like XPK, ABackup is worth its weight in gold, as anyone who's ever suffered from a major hard disk crash will be able to appreciate.

The GUI uses standard intuition rather than MUI. It doesn't look spectacular – you're not going to sit there looking at it for days on end – but that doesn't matter. What does matter is that it works, and works well. Besides, in an ideal world, you'd never have to look at it anyway.

However, the world is less than ideal, particularly for hard disk owners. So, when that download goes pear-shaped and the world dumps on your Seagate, make sure you've got a backup of that all-important data. Like believing in Santa Claus, the myth that your hard drive is even more reliable than a Volkswagen won't last forever. Be prepared, or be very, very gutted. ★★★★★



PlayPac 1.3

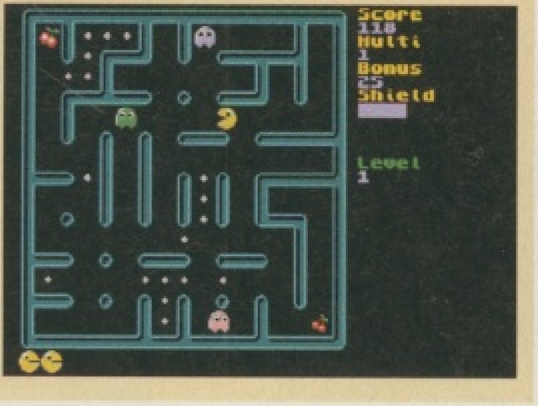
Type: Game
Available from: Aminet: game/misc/playpac.lha
Size:377K
Requirements: OS 3.0+ 800K disk space, 1Mb RAM (700K Chip)

Haven't we seen enough blessed Pacman clones already? Certainly not. Those who keep asking such questions often forget that for an idea to be copied so often, the original must've been a classic. Done well, a Pacman clone is no disappointment, and PlayPac could certainly argue its case for inclusion under this heading.

Version 1.3 of PlayPac sees the addition of a multiplayer mode, which certainly makes a change from the more common one-player versions. The random level feature also adds to PlayPac's longevity, though perhaps the only drawback is that each level tends to have several dead ends. In traditional Pacman, this would mean almost certain death, as colliding with a ghost would kill you instantly. Not so in PlayPac, where your Pacman has been given a shield, so that he can run through ghosts once or twice if he gets trapped.

Other nice touches include the ability to choose a screenmode and control various aspects of the game via a settings window. You can also choose between Low Res 16 colour graphics, or the much nicer High Res 64 colour graphics if you have AGA.

It would be nice to see grid sizes of more than 9 x 10 made available, if only for higher screen resolutions. With the multiplayer capability of v1.3, why not take it a step further with null-modem support, or even TCP/IP capability? Imagine multiplayer PlayPac on a random, huge (perhaps screen-scrolling) grid, with more powerups, played across the Internet either as a co-operative against the ghosts, all vs all, or even in a "grab the flag" team mode! Well, it'd make a change from QuakeWorld... ★★★★

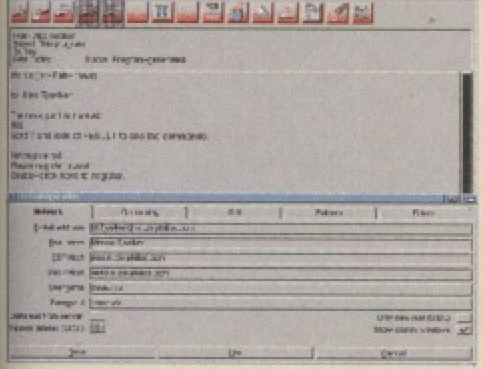


Iris v1.0

Type: Emailer
From: Aminet: comm/mail/iris.lha
Size : 219K
Requirements: OS 2.04, 1Mb free RAM, TCP/IP stack with TCP (AmiTCP or Miami)

Following the trend to name email software after characters from Greek mythology, Iris is bravely entering the already pretty well catered for market of email software. According to the documentation, current mailers for the Amiga either use MUI, crash often, have limitations, are expensive, slow, lacking in features or offer poor support for using a POP mailbox from more than one place.

If that's the case, we must be in trouble! How does Iris intend to save us? By relying on BGUI, a library which is hard to find support for these days and whose development appears to have ceased (something which Iris's author, Jilles Tjoelker, admits to in the documentation). Doesn't sound very hopeful, but let's not jump to conclusions.



Amongst Iris's feature list are such delights as support for Eudora's and Exchange's "Priority" and "Return-Receipt" headers, filter capabilities, keyboard shortcuts, "extensive use of multitasking" and support for accessing your POP mail account from more than one location. Some features, however – such as "ReplyAll" and "Forward" – are yet to be implemented. Well, it is only version 1.0 I guess.

The fact that Iris doesn't use MUI will no doubt please some, but I found the opening and resizing of windows rather sluggish. Whether this is down to BGUI, Iris, or just a blatant lack of RAM on my part I wouldn't like to say. All in all, it's a fair first effort, but a lot needs to be added if it's going to threaten the likes of Thor or Yam (a beta of v2.0 of which has just been released at the time of writing). ★★★

Best of Aminet

Following the popularity of the various Doom ports available on the Net (which appear to have settled down to seven at the last count), the first ports of Descent have appeared, 'Descent' and 'ADescent': both of which are located in game/shoot. At the time of writing, you'll need a fairly well-specced machine along with the data files from the original game to play Descent on your Amiga.

If you can't play it yet, you can always see what you're missing by taking a peek at pix/illu/DescentScrShot.lha (610K). Following on in the vein of the homepage for Doom ports, http://www.mindspring.com/~mamboman/as/index.htm promises to provide information on all ports of Descent to the Amiga.

Grab game/think/solitaire.lha (5K) for something to do whilst you're waiting for those larger downloads. This Workbench version of Solitaire provides minutes if not hours of frustration if, like me, you can't remember for the life of you how to complete it successfully. The thing is, once you have completed it, you don't really want to do it again. Perhaps a timer could be added, along with a "Fastest Times" high-score table to offer more of a challenge?

Of course, not everyone spends hours on their computer day after day, week after week. Most of us do occasionally manage to step outside or at least open a window to remind ourselves what "fresh air" tastes like.

Imagine my horror when I was abruptly removed from the latter category and firmly placed in "addict" territory by util/cdity/2b_DailyUp.lha (53K). This MUI-utilising tool happily tells you how much time you spend on your computer each day, and will even show you the worrying statistics in graphical form if you don't believe it initially.

Finally, for those of you who haven't jumped on the bandwagon to tower up your A1200 in recent months, how's about giving that beige casing a bit of a paint job? pix/art/a1200.jpg (29K) may give you the necessary inspiration.



PD•post

PD•post

For those without Internet access, here's Steve Bye with a round-up of the latest PD available via mail order.

Survivor

Type: Collect/Shoot-em-up

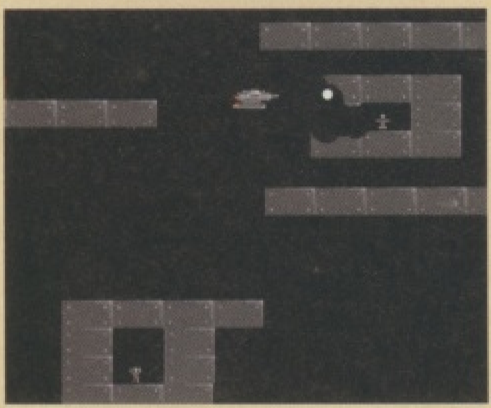
Available from: Underground PD, 54, Carmania Close, Shoeburyness, Essex. SS3-9YZ. **Tel:** 01702-295887

Price: £1.50

If you ever had an Atari ST (it's OK, you don't have to admit it publicly) you'll probably remember a game called Oids. It was one of the best games the ST ever got and came from the Dungeon Master stable, crossing Choplifter with Thrust. Survivor is a bit of a poor man's version of Oids.

The aim is to collect a certain amount of men from the scenery on each level. There are six of them, though none are that big. Most of your time is spent blasting away at the rocks with a combination of cannons and bombs, whilst avoiding the enemies. Whereas Oids had buckets of class, atmosphere and loads of big levels, Survivor is a far more pedestrian affair. It's hard to muster any great affection for the little critters, which doesn't help matters. ★★★





MagScan V1.0

Type: Article database

Available from: Mark Sweeney. 15, Birchfields Rd. Longsight, Manchester. M13 OXP.

Tel: 0161 224 6413

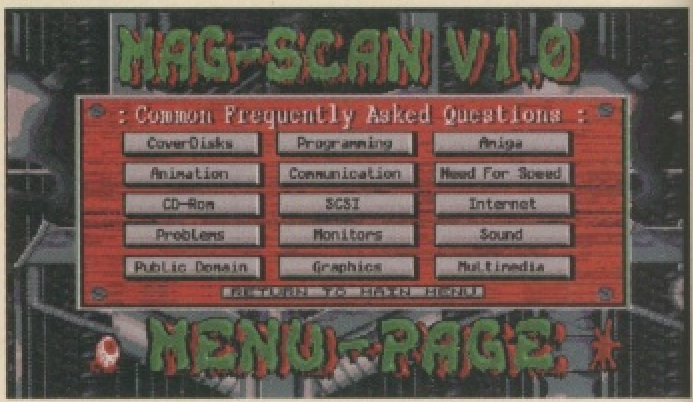
Price: £5

You might have noticed this month's CU Amiga comes with a new Reviews Index section (see page 90). Due to space constraints we've limited it to two pages at the moment, not wanting to use up valuable pages on re-prints.

Mark Sweeney, the author of MagScan has gone a bit further and compiled a database of CU Amiga reviews going back to 1994. This is not an official CU Amiga database and we take no responsibility for its accuracy, but it seems to have been put together fairly well. Details such as price, overall score, supplier and quotes from the reviews are all included with the entries.

Mark gets into dangerous territory though with re-prints of our FAQ series. This is totally illegal and amounts to piracy. Mark, you must remove this immediately or expect a call from our publisher's lawers.

On those grounds we shouldn't be covering it at all here, but assuming it comes without ripped-off articles, we would recommend it to anyone who can't be bothered looking back through a stack of issues to find a single review. ★★★★



Stone Towers

Type: Strategy/puzzle

Available from: Underground PD, 54, Carmania Close, Shoeburyness, Essex. SS3-9Y.

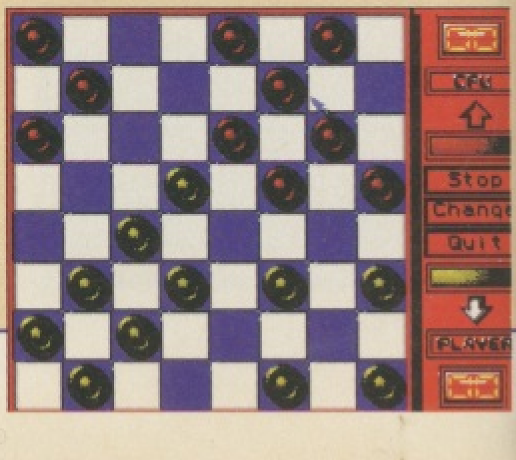
Tel: 01702-295887

Price: £1.50

This is a very simple game on the outside, but when you get stuck in to the strategies you can employ it can give you a headache. The basic premise is to own as much ground as possible, you claim some ground by clicking your mouse on the screen and placing a castle, once you've done that you own the four squares surrounding that castle. Then your opponent takes his/her turn, this can be another human, a martian, or the computer.

Once the screen is full the battle takes a turn. To win you need to own as many squares as possible so to protect the ground around your castles you must upgrade them to be stronger than your opponents nearest castle. The winner after a set amount of turns is the one with the strongest influence over the most squares if you get what I mean, it's simple to play but hard to explain. Good though.

A bonus game on this disk is called Dama, a rather nice looking game of Draughts with ray-traced pieces but a low IQ computer opponent. Both games are best played against a human opponent. An entertaining disk. ★★★★

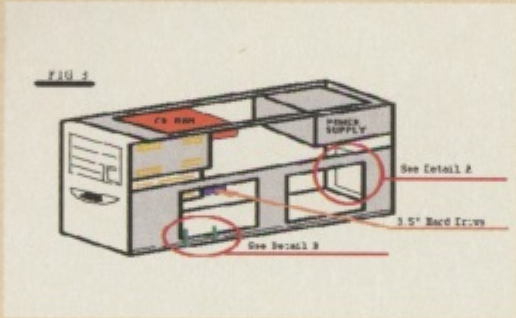


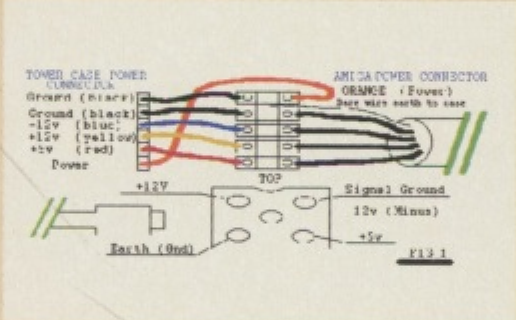
MiniTower Project

Type: Tutorial

Available from: S.Benton. 69 Stroud Avenue. Short Heath. Willenhall. West Midlands. WU12 4EB. (No telephone number available)

Price: £1.75 inc P&P





If you feel confident enough to turn your Amiga into a tower system with a 24 speed CD-ROM, this will be of use to you. It is an AmigaGuide document taking you step by step through each grisly moment.

Personally I would be far too frightened to start hacking away at casings, modifying power supplies and sticking meters in high voltage areas, and if you feel the same don't even attempt it because this isn't a Blue Peter special with a few bog rolls and a fairy liquid bottle.

But if you do decide to give it a go this disk gets you off to a good start with many hints, tips and warnings as well as a cheap suppliers and parts list that according to the author will save you quite a few bob. You will also need a few quid to complete the project. For propeller heads with soldering irons only. ★★★★

BosCar

Type: Racing

Available from: Norwich PD. 43 Motum Rd, Norwich, Norfolk. NR5-8EH.

Tel: 01603-504655

Price: 65p + 50 P&P

Game of the Month

This 1 or 2 player split screen racer has some touches of graphical excellence in it, not to mention some good programming and attention to detail. Though Boscar is Shareware (that's our good fortune) it is only a few screen refreshes and a bit of polish away from being of commercial quality. The opening menu screen offers you the choice of race track, control, 1 or 2 player, difficulty level, Grand Prix/Quick Race and 'Auto Align'.

The last named should be used until you get used to the track layout because of the perspective, you could be going 'into' the screen at the start flag and coming 'out' of the screen down the back straight, if you spin off the track, and you will, you can easily get disorientated. Having Auto Align on will set you back in the right direction. There's no cheating allowed in this game either, if you cut too many corners you will be punished. During the race you can view any of your opponents cars by pressing the 1-9 keys, also at the side of the screen are birds-eye views of the race in progress. There are only 2 tracks on offer in this demo version and you can't play the Grand Prix, a tenner to the author will solve all that though. As I said, there are nice graphics, the sound effects are OK and the playability is there. It's a bit of a corker actually. ★★★★







The Bogue

Type: Shoot-em-up

Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26-2SH. **Tel:** 0161 723 1638

Price: £1 plus 75p P&P per order

Let's start with the main sprite. Any games programmer knows this is what the player looks at all the time and it should move smoothly and be pleasant on the eye... oops, not in this game Bruce.

The enemies should also at least be attractive surely? Well, in The Bogue some of the enemies are boxes, yes those cardboard things, and just to make sure you know they are boxes the boxes have "BOX" stamped on them, very handy that. In The Bogue's favour though we have nearly smooth horizontal scrolling, passable sound effects and a very easy game to complete, even the end of level baddie is a wimp. The majority of the graphics have so obviously been borrowed from different sources that the palettes clash badly leading to intermittent screen vomit.

If there was any kind of documentation with the game, apart from a dodgy bit of scroll text I couldn't focus on, it might help to explain whether this is aimed at 3 year olds and if it was created with one of those dodgy game construction programs, which I have a sneaking suspicion it was. Sorry, this months turkey. ★

B-Card V1

Type: Business card creator.

Available from: Classic Amiga Software, 11 Deansgate, Radcliffe, Manchester M26-2SH **Tel:** 0161 723 1638

Price: £1 +75p Per order

Although this utility looks like it was written in 1980 it is a new release. The ugly design and clunkiness of the front-end disguises a program that actually works quite well and runs on an A1200.

B-Card allows you to easily create business cards from a set of supplied templates. You can add your own borders and clipart too if you want (a selection of borders are available from the author). You can print 12 business cards onto an A4 piece of card and bobs your uncle.

Colour printing is not supported but may be in a later version. B-Card executes its allotted task well enough, looks aren't everything you know. ★★★



Art Gallery

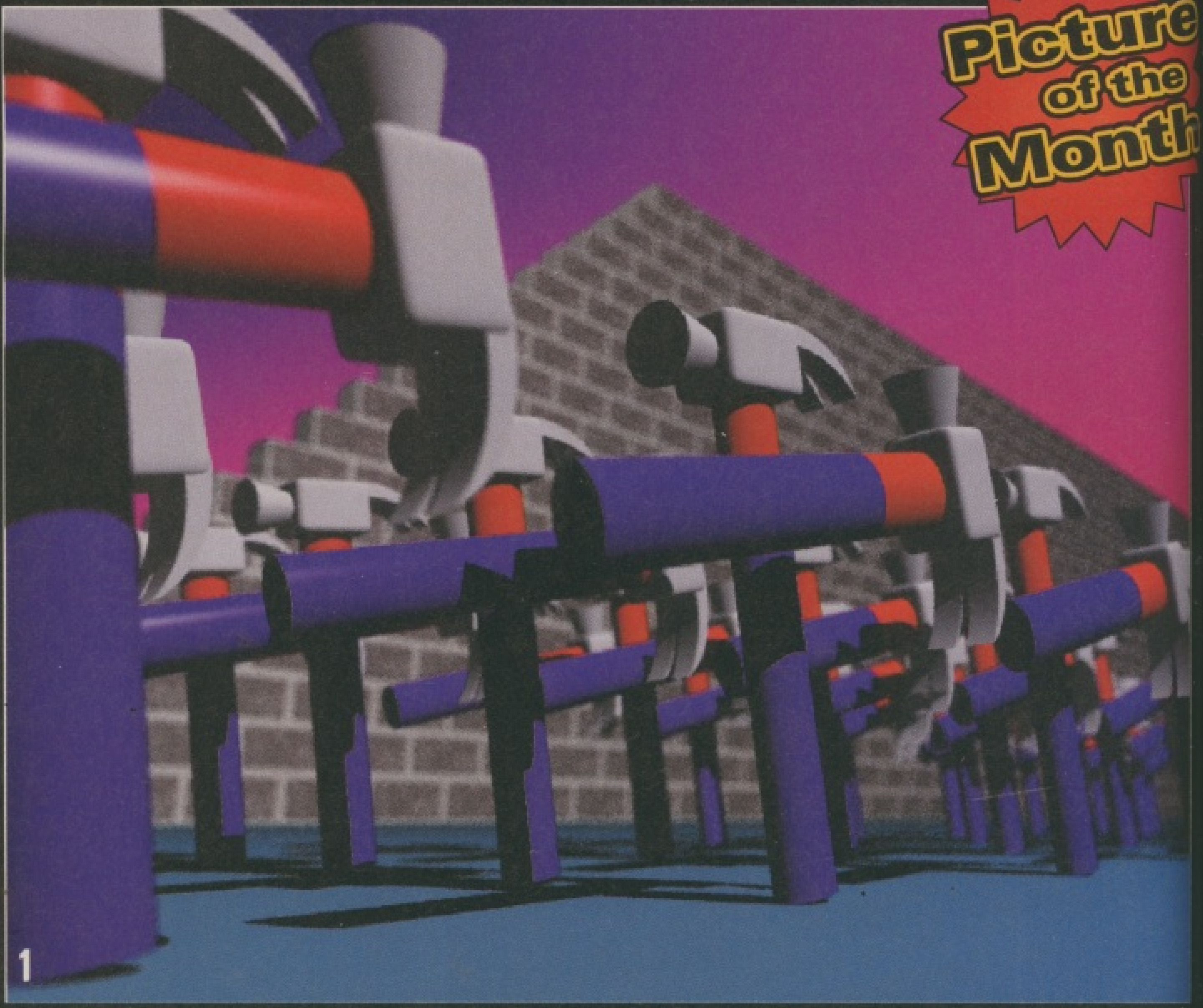
Are you a Digital Dali? Computer Carravagio? Send your pics to: Art Gallery, CU Amiga, 37-39 Mill Harbour, Isle of Dogs, London E14 9TZ.

See your work in print... and win a print, too!

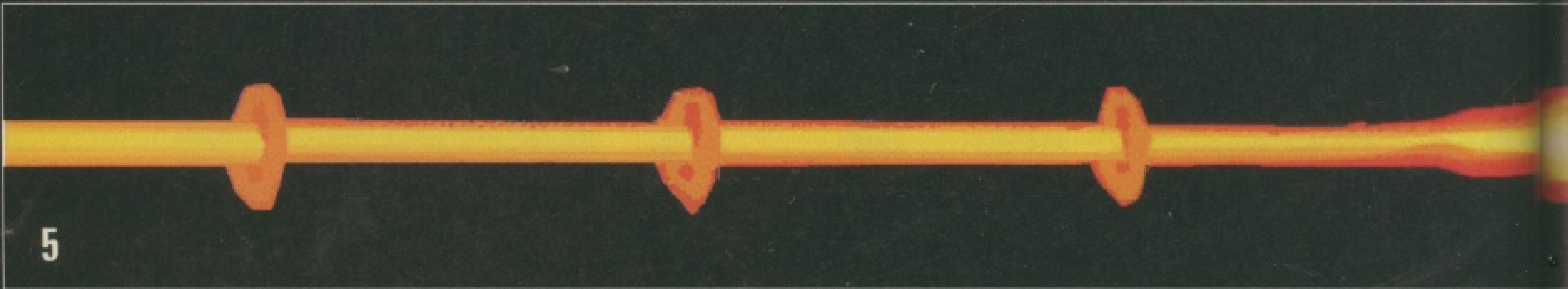
Each month we will declare one picture in the Gallery to be picture of the month – and if it is yours, we will send you a print of your work output to an ultra high quality IRIS printer on glossy paper (that's around 25-30 quid from a print shop to you, guv') – you'll never see your work look so good!

If you want to enter a picture into Art Gallery, either email it to artgal@cu-amiga.co.uk or post in on disk to our normal address, marking the envelope Art Gallery. We recommend the use of PNG format as it saves a lot of disk space, but alternatively GIF or IFF are fine.

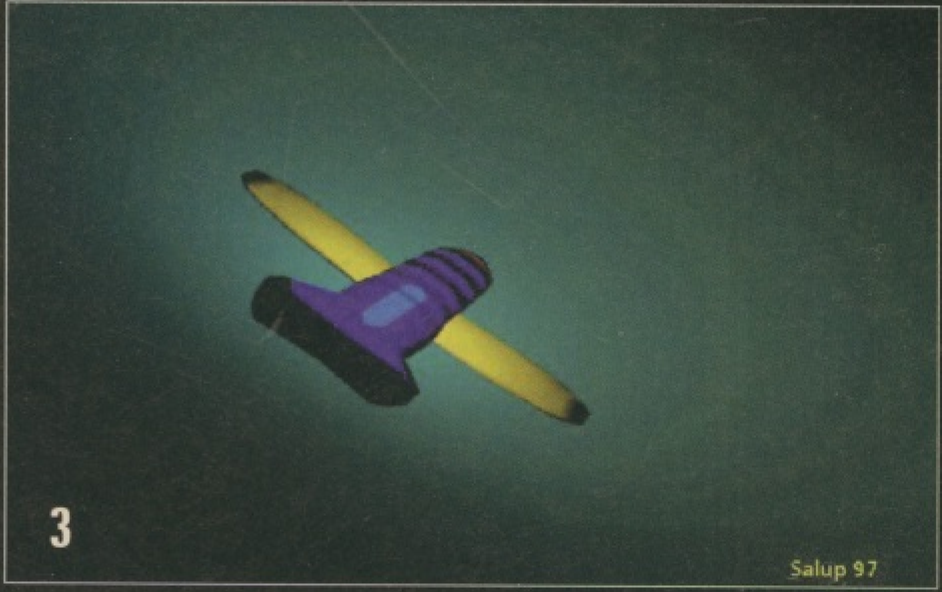
* JPeg drops image quality and should be avoided where possible, and should never be used for images with 256 or fewer colours.



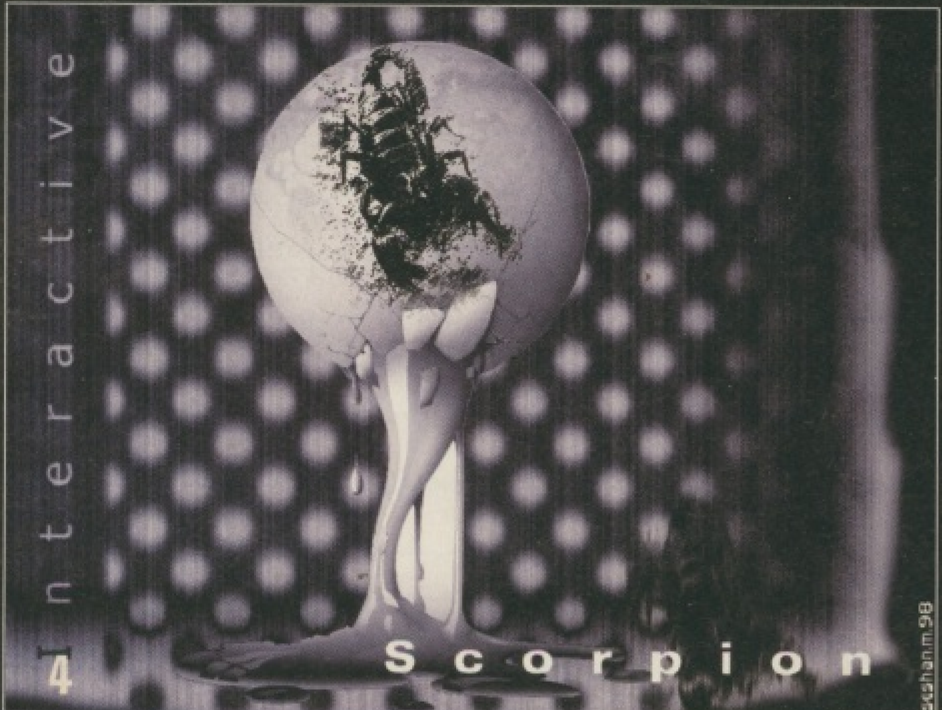
1


5

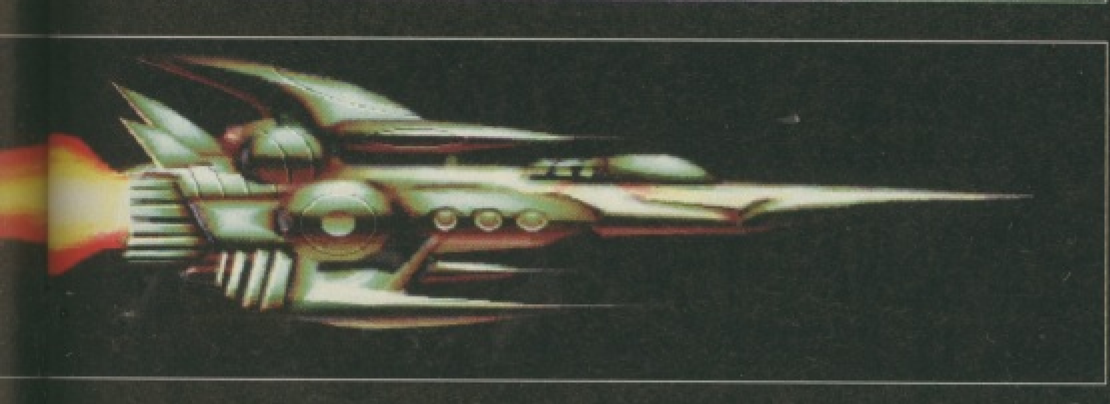

2



3



4



1. Hammers by Calum Cookson

Anyone with a passing knowledge of 80's rock will recognise the motif from Pink Floyd's The Wall. While this image does not have the same foreboding impact of the Gerald Scarfe original, the plastic colours and superreal smoothness make this pretty eyecatching. Rendered in POV RAY, Calum used a SUN system at work for the final render, one of the advantages of using a ray tracing program available for pretty much any computer you can think of.

2. Bad Dwarf by Kevin Cullen

Kevin Cullen does the original drawings for his work on paper, scans them in to his A1200 and the redraws and colourises them in Brilliance and ImageFX. Given that he is working on an AGA screen and Multiscan, this is pretty sensible. Fast, smooth hand art is not Multiscan's prime talent.

The style of the image is solidly in the Frank Frazetta fantasy art school, strongly reminiscent of American fantasy comics of the 1970s, or something you'd find on the back of a Hawkwind Album. Oddly enough, I can't get the thought out of my mind that this dwarf looks like Eric Cantona...

3. Fast Ship by Kevin Cullen

Kevin's second offering is pretty unusual. Although the screen is presented to you in a set aspect ratio, there is no reason for you to stick with it. This one is a pretty extreme 1520 by 164 pixels. It's great to see people playing with image format like this, it's a refreshing change from seeing everything screen shaped. On the other hand, I'm not sure we want to encourage the trend too much, it makes it very hard to lay out! Well done Kev and keep them rolling in.

4. Scorpion by Seshan M.

We dragged CU Amiga designer Seshan M kicking and screaming off his Mac and forced him at gunpoint to try PPaint. "Hey, " he said. "I like this, it's really easy to use." The erm... shape in the middle was as far as it got before we ran into trouble. "I want to apply noise and texture effects for a backdrop, where are they?" Once a Photoshopper, always a Photoshopper. We let him go back to Adobe's famous graphics package for the backdrop, but just to be difficult we made him use it under Fusion on an Amiga!

5. Ship by Linus Gustafsson

This image is an Imagine render, apparently of a ship. I can't see it myself. A model aeroplane made out of squeezy washing up liquid bottles, perhaps...

I hated this when I first saw it. It is blurry, garish and indistinct. Now I rather like it. I think it's the rich blue background and the soft light-sourcing, I find it rather relaxing. Maybe Linus could do a version without the object in the centre, giving rise to an entirely new use of 3D rendering software for generating Mark Rothko style minimalist art.

User Groups

Our international user group index is spiralling out of control! We'll be covermounting a free magnifying glass with next month's installment. Or maybe we'll just give it some more space. Either way, feel free to send us details of your group for inclusion. See the form opposite for details.

Amiga Christchurch Inc.
Location: Christchurch NewZealand
Contact: Annette Leonardo
Telephone: +64 03 3390232
Meeting times: Second Tuesday of every month 7:30 pm.
Places: Shirley Community Centre, Shirley Rd.
Address: ACI. PO Box 35-107, Christchurch, NZ

Amipack
Location: World Wide – An Amateur Radio Amiga Group
Contact: Paul Carson
Email: DJKus@CarsonJ.clara.net
Telephone: N/A
Meeting times: TBA
Places: On the Amateur Radio Packet Network.
Address: 10 Belgravia Avenue, Bangor, Co.Down, N.Ireland BT19 6XA

Waaslandia
Location: Belgium
Contact: Tony Mees
Email: waasland@glo.be
Telephone: +32 (0)3744 1319
WWW: http://titan.glo.be/~waasland
Meeting times: 12 meetings per year.
Places: We have 6 Amiga clubs in Belgium:- Antwerpen; Merksem; Aalst; Mechelen; Turnhout; St-Niklaas
Address: Lepelstraat 11, 9140 Steendorp Belgium

Wigan/West Lancs Amiga User Group
Location: Wigan/W Lancashire
Contact: Simon Brown/Ralph Twiss
Email: ssamiga@warp.co.uk
Telephone: Simon; 01257 402201 or Ralph; 01695 623865
WWW: www.warp.co.uk/~ssamiga
Meeting Places:St Thomas the Martyr School Hall, Highgate Road, Up Holland, Lancs
Address: 79 Woodnook Road, Appley Bridge, Wigan, WN6 9JR & 32 Higher Lane, Up Holland, West Lancs

Alpha Software
Location: Newcastle, UK
Contact: Gareth Murfin
Email: gazy@globalnet.co.uk
Telephone: 01670 715454
WWW: http://www.users.global-net.co.uk/ ~gazy/
Meeting times: 8 - 9pm.
Places: IRC #AmIRC GalaxyNet
Address: Alpha Software. Gareth Murfin.113, Cateran Way, Collingwood Grange. Cramlington Northumberland. NE23 6EZ. UK.

Convergence International
Location: International
Contact: Ben Clarke
Email: enquiries@convergence.eu.org
Telephone: 0956 985959
WWW: www.convergence.eu.org
Meeting times: 8pm (GMT), Wednesdays and Sundays
Places: #converge (IRCnet)
Address: 49 St. Gilberts Road, Bourne, Lincs, United Kingdom

Amiga Club Genk (ACG)
Location: Genk, Belgium
Contact: Bart Vanhaeren
Email: amiga.club.genk@skynet.be
WWW: http://users.skynet.be/amiga/acg
Meeting times: every 1st Sunday of month
Places: Cultural Centre of Genk, meeting room 1
Address: Weg Naar Zwartberg 248 B-3660 OPGLABBEEK, BELGIUM

Relax ITC
Location: Poland
Contact: Shandor
Email: shandor1@polbox.com
Telephone: +48-91-357184
Meeting times: TBA
Places: unspecified
Address: ul.Maciejewicza 1/27 71004 Szczecin 10, Poland

National Capital Amiga User Group
Location: Washington D.C. USA
Contact: Fabian Jimenez
Contact by: Phone (please send us your phone number... Fabian)
Telephone: 301/924-0750 (10pm – 1am EST)
Meeting times: 12:00 noon EST
Places: Dolly Madison Library
Address: Fabian Jimenez, NCAUG PO Box 12360, Arlington, VA 22209 USA

Amiga World Special Interest Group
Location: Athens, Greece
Contact: Menis Malaxianakis
Telephone: 301 - 9026910/9012019
WWW: http://www.compulink.gr/amiga
Meeting times: 5pm Saturdays
Places: Athens
Address: Menis Malaxianakis, Giannitson 11str. 17234, Dafni Athens. Greece

Amiga Forever!
Location: Hampshire
Contact: Stuart Keith
Telephone: 01703 861842 all day
Address: 101 Ewell Way, Totton, Southampton, Hants S040 3PQ

Mutual Amiga Computer Enthusiast
Location: Beresfield, Newcastle, Australia
Contact: Ken Woodward
Email: ken@rich.com.au
Telephone: after working hours
Meeting times: 7pm 1st & 3rd Wednesday of month
Places: Beresfield Bowling Club.
Address: 59 Carnley Avenue, New Lambton, Newcastle, NS Wales Australia

Kickstart, Surrey Amiga User Group
Location: Surrey
Contact: Rob Gilbert
Email: gilbie@arrakis.u-net.com
Telephone: 01932 875336
WWW: www.arrakis.u-net.com
Meeting times: Monthly (TBA)
Places: Vary
Address: 10 BRox Road, Ottershaw, Surrey. KT16 OHL

Canberra Amiga Users Society Inc
Location: Canberra, ACT, Australia
Contact: Alex Cameron (Secretary)
Telephone: (02) 6286 2966
WWW: http://www.spirit.net.au/~jamesm/CAUS/
Meeting times: 2nd Thursday of the month from 8pm.
Places: Woden Town Centre Library (Entry – The Elm Cafe).
Address: Canberra Amiga Users Society PO Box 596, Canberra ACT, 2601, Australia.

XCAD User
Location: N Ireland
Contact: Tony McGartland
Telephone: 01662 250320 (after 6pm)
Meeting Times/Places: TBA
Address: 11 Lammy Drive, Omagh, Co Tyrone BT78 5JB

ICPUG SE Computer Club
Location: Biggin Hill, Kent
Contact: Len Beard
Telephone: 01689 813 616
Meeting times: Thursdays 8-10pm
Places: Biggin Hill (phone for details).
Address: 56 Rookesly Rd, Orpington, Kent. BR5 4HJ

Colchester Amiga Forum
Location: Colchester, Essex
Contact: Patrick Mead
Telephone: 01206 212 864 (Mon-Fri
Email: pjmead@Hotmail
Meeting Times/Places: TBA
Address:9 Windmill Ct, Copford, Colchester, Essex. CO6 1LH

Luton Amiga Users Group
Location: Luton, Beds
Contact: Dave Noble
Telephone: 01582 750 538
Meeting Times/Places: Monthly TBA

Deal Amiga Club
Location: Deal, Kent
Contact: John Worthington
Telephone: 01304 367 992
Meeting times: 7pm Fridays.
Places: St John Ambulance Hall, Mill Hill, Deal, Kent.
Address: 100 Trinity Place, Deal, Kent

Amiga Service
Location: Charleroi, Belgium
Contact: Hoet Raphael
Telephone: 003271 458 244 (9am-6pm)
Meeting times/places: TBA
Address: Rue Du Nord 93, 6180 Courcelles, Belgium

Extreme Coders
Location: Sheffield
Contact: Mark Johnston
Telephone: N/A
Meeting Times/Places: Contact for details
Address: 1st Floor, 145 Upperthorpe Rd, Upperthorpe, Sheffield. S6 3EB

Stoke Amiga User Group
Location: Stoke on Trent, Staffs
Contact: Paul Shelley
Telephone: 01782 833 219
Meeting Times: 7.30pm Wednesdays
Places: Jester Public House, Biddulph Rd
Address: 19 Houldsworth Drive, Fegg Hayes, Stoke on Trent, Staffs. ST6 6TG

Amiga Falcons
Location: Malmo, Sweden
Contact: Carl-Johan Rudnert
Telephone: +46 40 932212
WWW: http://www.algonet.se/~mcisaac/amiga
Address: Amiga Falcons, c/o Carl-Johan Rudnert, Veberodsgatan 9, SE-212 28 Malmo SWEDEN

Finnish Amiga Users Group
Location: Finland
Contact: Janne Siren
WWW: http://batman.jytol.fi/~saku/
Address: Janne Siren Oravamaentie 2 F 17 02750 Espoo. FINLAND

Amiga Computer Enthusiasts of Elkhart, Indiana
Location: Northern Indiana, USA
Contact: Gregory Donner
Telephone: (219) 875-8593 (after 5pm)
WWW: www.cyberlinkinc.com/gdonner/ace.htm
Meeting times: Second Saturday of the month
Places: 26728 Hampton Woods Dr., Elkhart, IN 46514
Address: 60300 Pembrook Lane, Elkhart, IN 46517-9167. USA

Photogenics & ImageFX Users
Location: Stanford-Le-Hope, Essex
Contact: Spencer
Telephone: 01375 644614 (9am-9pm)
WWW: http://web.ukonline.co.uk/spencer.jarvis/contents.html
Meeting times/Places:TBA
Address: 44 Brampton close, Corringham
Stanford-le-Hope, Essex. SS17 7NR

No Specific Name
Location: Greenford Community Centre, London
Contact: Richard Chapman
Telephone: 0181 998 8599 5pm-8pm week, all day at weekends
Meeting times: 7pm-10pm Thurs
Place: Greenford Community Centre
Address: 96 Meadvale Road, Ealing, London, W5 1NR.

AmyTech Amiga Users Group
Location: Dayton Area, Ohio. USA
Contact: John Feigleson
Telephone: (937)667-9541 After 6pm EST
WWW: www.coax.net/people/erics/Amitech.htm
Meeting time: 3rd Saturday of the month – 1:30pm
Places:Huber Heights Library
Address: AmyTech, P.O. Box 292684
Kettering, OH. 45429-0684

South West Amiga Group
Location: South West England
Contact: Andy Mills
Telephone: 01275 830703 (7-10.30pm weekdays, anytime weekends (within reason))
WWW: http://www.wharne.u-
Meeting Times/Places: TBA (likely to be Bristol/Bath area)
Other: Please contact for further details
Address: 51 Wharnecliffe Gardens, Whitchurch, Bristol. BS14 9NF

Tuggerah Lakes Computer Users Group
Location: Central Coast, NSW. Australia
Contact: Darrell Keirnan
Meeting Times: 1st & 3rd Thursday of every Month
Places: Berkeley Vale Public School 7.00pm
Address: PO Box 659, Toukley. NSW. Australia 2263

Tasmanian Commodore Users Association Inc
Location: Hobart, Australia
Contact: Eric Fillisch
Telephone: (018) 120 787
Meeting times: 7:30-9:30pm, 3rd Wednesday of the month
Places: Contact for address
Address: GPO Box 673, Hobart GPO TAS 7001

University Place Commodore Home Users Group
Location: Tacoma, Washington USA
Contact: Jim McFarland
Telephone: (253) 265-3478 evenings
WWW: http://www.nwlink.com/~redbeard/upchug/
Meeting times: 4th Thursday evening of each month
Places: Fircrest Community Center, Tacoma, WA
Address: PO Box 11191, Tacoma, WA 98411-0191. USA

R.A.V.A.
Location: Alkmaar, the Netherlands
Contact: Roland de Herder
Telephone: Wanna call international? Ask me for my number.
WWW: http://www.cybercomm.nl/~macron/rava.html
Meeting times: 12 times a year
Places: Alkmaar
Address: R. de Herder, Ewislaan 35
1852 GM Heiloo, The Netherlands

Virus Help Team – Norway
Location: Norway
Contact: Helge Syre
Telephone: +4790175626
WWW: http://home.sol.no/~syre
Address: Roeyrvikvegen 40
N-4280 SKUDENESHAVN

CWCCC
Location: West Midlands
Contact: Luke Stowe
Telephone: 0966 467596 (after 10am)
WWW: None yet
Meeting times: 8pm-11pm
Places:Earlsdon Methodist Church
Address: 9 Trossachs Rd, Mount Nod, Coventry, CV5 7BJ

Amigart
Location: Istanbul
Contact: Guvenc KAPLAN
Telephone: 00902163020915
WWW: http://www.medyatext.com.tr/amigart
Meeting times: Two a month
Places: Anywhere
Address: Ortabahar sok. No:1 Hayat apt. d:2, 81080 GOZTEPE-ISTANBUL TURKEY

Commodore Computer User Group Queensland
Location: Brisbane, Australia
Contact: Ronny Blake
Telephone: (07)32871790
WWW: http:www.powerup.com.au/~rastlin
Meeting times:1st Tues of month, 7– 9pm & 2nd Sun of month 12pm to 4pm
Places:St Laurence's College, 82 Stephens Rd, S Brisbane. Qld.
Address: 3 Conoble Court, Eagleby, Gold Coast, Queensland, 4207. Aust

Ayrshire Amiga Society
Location: Irvine, Ayrshire, Scotland
Contact: Maitland or Dale
Telephone: 01292 267959 or 01294 275535
Meeting times: Wednesdays
Places: Annick Community Centre, Irvine.
Address: 49 Belmont Road, Ayr
Scotland. KA7 2PE

West London Computer Club
Location: West London
Contact: Alan Paynter
Telephone: 0181-932-1856
Meeting times:1st and 3rd Tues of month
Places: Duke Of York Public House
Address: 19 Harlech Tower, Park Rd East, Acton, London, W3 8TZ

Dublin Amiga Users Telephone Helpline
Location: Dublin, Ireland
Contact: Eddie McGrane
Telephone: +353-01-6235903
WWW: http://www.ireland.amiga.org/helpline.html
Meeting times: Anytime (24 hrs.)
Address: 27 St. Finians Green, Lucan, Co. Dublin, Eire

Central Arkansas Amiga Users Group
Location: Little Rock, Arkansas
Contact: Tim Grooms
Telephone: 501-851-7418
WWW: http://www.concentric.net/caa ug.html
Meeting Times/Places: Monthly TBA
Address: 14 Hickory Lane,
Maumelle, AR 72113. USA

Stoneybridge BBS
Location: Dorset, UK.
Contact: Ozz
Telephone: 01202 679158 (10:30pm-6am GMT)
Address: 50 Junction Rd, Hamworthy, Poole, Dorset. (c/o NBI.UK.)

Amiga User Group of Western Australia
Location: Perth, Western Australia
Contact: Arthur Rutland
Telephone: 08 93641717
Meeting times: 2nd Tues of month at 7pm
Places:Curtin University
Address: 31 Chaffers St, Morley
Western Australia, 6062

Amiga Computer Group
Location: Umeå, Sweden
Contact: Martin Sahlén
Telephone: +46-[0]90-24816 (24 hrs)
WWW: http://www.amiga-cg.se
Meeting times: Tuesdays 19:00
Places: Kafé Station, Umeå
Address: Skolgatan 14, SE-903 22
UMEÅ. Sweden

Huddersfield Amiga Users
Location: Huddersfield, W Yorks
Contact: Geoff Milnes
Telephone: 01484 543534
WWW: http://www.geemil.demon.co.uk
Meeting times: 7.30pm onwards
Places:Commercial Inn, Market St,Paddock Huddersfield.
Address: 6 Ochrewell Avenue, Deighton, Huddersfield, W Yorks.

Highland Amiga User Group
Location: Highlands, Scotland
Contact: Tommy MacDonald
Telephone: 01667 404757 Anytime
WWW: http://azone.prohosting.com
Meeting Times/Places: TBA
Address: 7 County Cottages, Piperhill, NAIRN, Scotland. IV12 5SE

Emerald
Location: Northern Ireland
Contact: Charles Barr or Chris McGonagle
Telephone: 01504884700
WWW: http://www.geocities.com/SiliconValley/Park/7401
Meeting Times/Places: TBA
Address: 77 St Colmans Drive, Strabane, Co. Tyrone, N Ireland

Send this form to: User Groups; CU Amiga, 37-39 Milharbour, Isle of Dogs, London, E14 9TZ.

Alternatively, fax it to: 0171 972 6755, or use the online version of the form which can be accessed from our website at: www.cu.amiga.co.uk This service is completely free of charge.

General Location: ____________________

Tel: ____________________

Postal Address: ____________________

____

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Meeting Times/Places:

____

____

____

Group name: ____________________

Email: ____________________

Web site: ____________________

Contact name: ____________________

Preferred contact method.(please tick)

E-mail☐ Phone☐ Post☐

CU AMIGA MAGAZINE

GASTEINER Tel: 0181 345 6000

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WITH PRINTER CABLE

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4MB	£25.00	£15.00
8MB	N/A	£19.99
16MB	N/A	£39.99
32MB	N/A	£59.99

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PARALLEL PRINTER CABLE	£6.00	MODEM/FAX	£39.99
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AMIGA JOYSTICK	£15.00	PAPER(copy print)	£5.00

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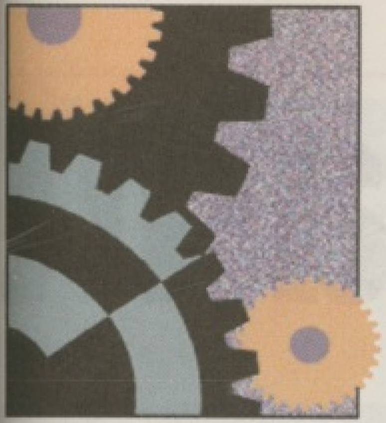
ALL PRICES INCLUDE VAT, SMALL CONSUMABLES AND SOFTWARE ITEMS UNDER THE VALUE OF £59 PLEASE ADD £4.50 P&P.OTHER ITEMS EXCEPT LASERS, NEXT DAY COURIER SERVICE £10 PER BOX. OFFSHORE AND HIGHLANDS, PLEASE CALL FOR A QUOTATION. IN ADDITION WE OFFER THE FOLLOWING EXPRESS SERVICES: SATURDAY DELIVERY NORMAL RATE PLUS £15 PER BOX, MORNING, NEXT DAY NORMAL RATE PLUS £10 PER BOX, E&OE PRICES ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. ALL TRADEMARKS ACKNOWLEDGED

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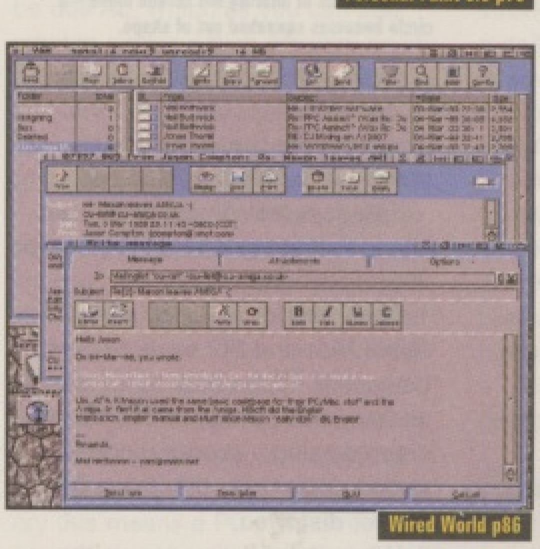
WWW. GASTEINER.COM

Amiga Workshop



Meaty, solid and full of goodness, this month's Workshop section is a bit like a nice Sunday roast (in a way).


Personal Paint 6.6 p76


Wired World p86

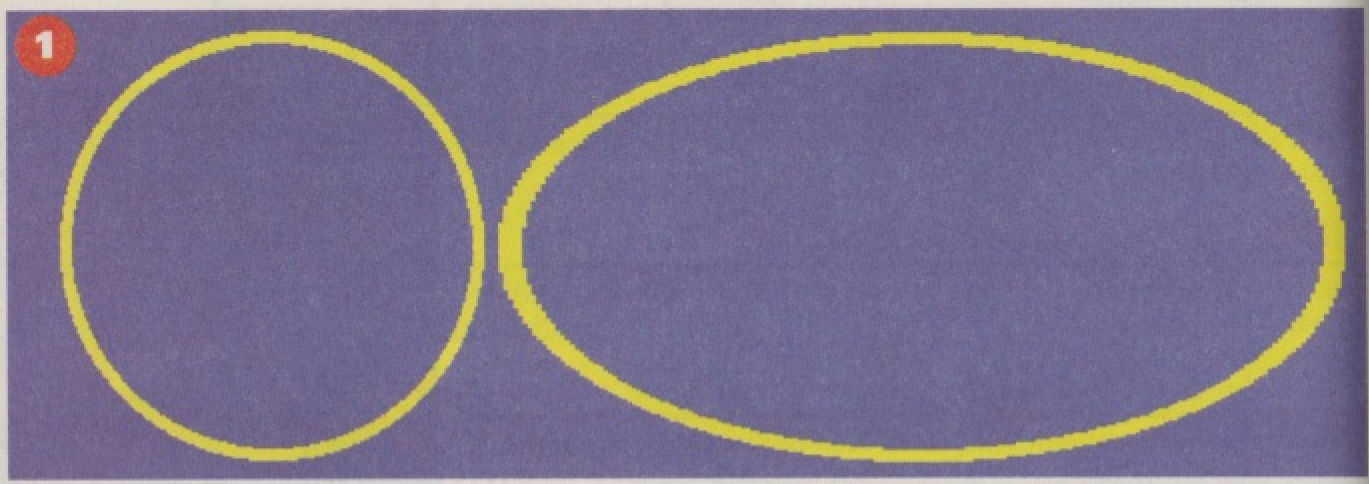


Scala MM300 p88

Regulars

PART 4 Personal Paint

Everything is not as it seems – Amiga pixels have a secret which makes drawing something as simple as a circle harder than you might think.



▲ The effects of altering the screen mode – a circle becomes squashed out of shape.

As you know, the most basic element which can be displayed on your Amiga's screen is the pixel. The pixel, a contraction of Picture Element, is simply the smallest dot which can appear. When you use the finest possible brush and draw a single dot, that's a pixel.

The number of pixels displayed depends on the screen mode: for example, the default Amiga Workbench resolution is PAL hi-res mode which uses 256 lines of 640 pixels. Other graphics modes have different numbers of pixels across, and the mode you select has a huge bearing on the appearance of an image. By the way, at the moment we are ignoring the number of different colours which can be displayed – this often varies from screen mode to screen mode, especially on pre-AGA machines.

The important point to realise is that the different screen modes cause the pixels to change shape. Unlike almost every other computer platform, Amiga pixels are stretched depending on how the screen hardware is programmed.

This is easy to demonstrate to yourself. Start Personal Paint, and make sure the screen mode is standard low resolution PAL: 256 lines of 320 pixels. Draw a large circle in the middle of the screen, and then use the Image Format menu option to change to high resolution PAL: 256 lines of 640 pixels.

The circle will change shape drastically, as the width of the screen is doubled. (1)

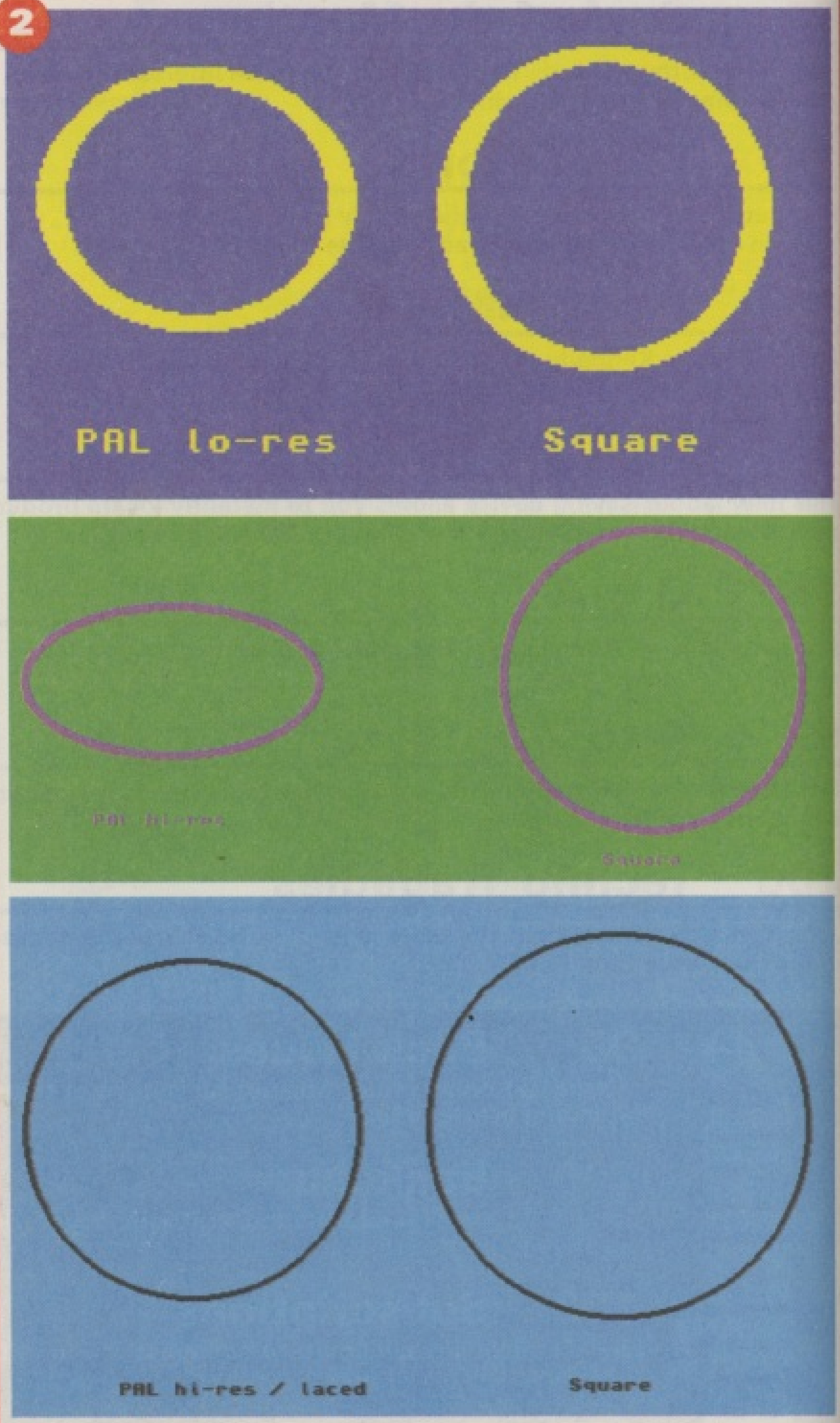
The fact that Amiga pixels can change shape can be a problem for the following reasons:

1. Other platforms, such as the Apple Mac and PC, expect pixels to be square. When they try to display an Amiga image which has been created using a screen mode with rectangular pixels, the image can appear distorted.
2. When drawing images on the Amiga, it can be hard to create realistic shapes if you can't depend on screen distances in the vertical and horizontal directions consisting of the same number of pixels. Drawing perfect circles and squares can be fraught with difficulties.
3. Assuming you have created a drawing, then as we have just seen, if you need to change the screen mode in order to fit in more detail, or to obtain a larger colour palette, you can totally destroy it by stretching or shrinking it in one dimension.

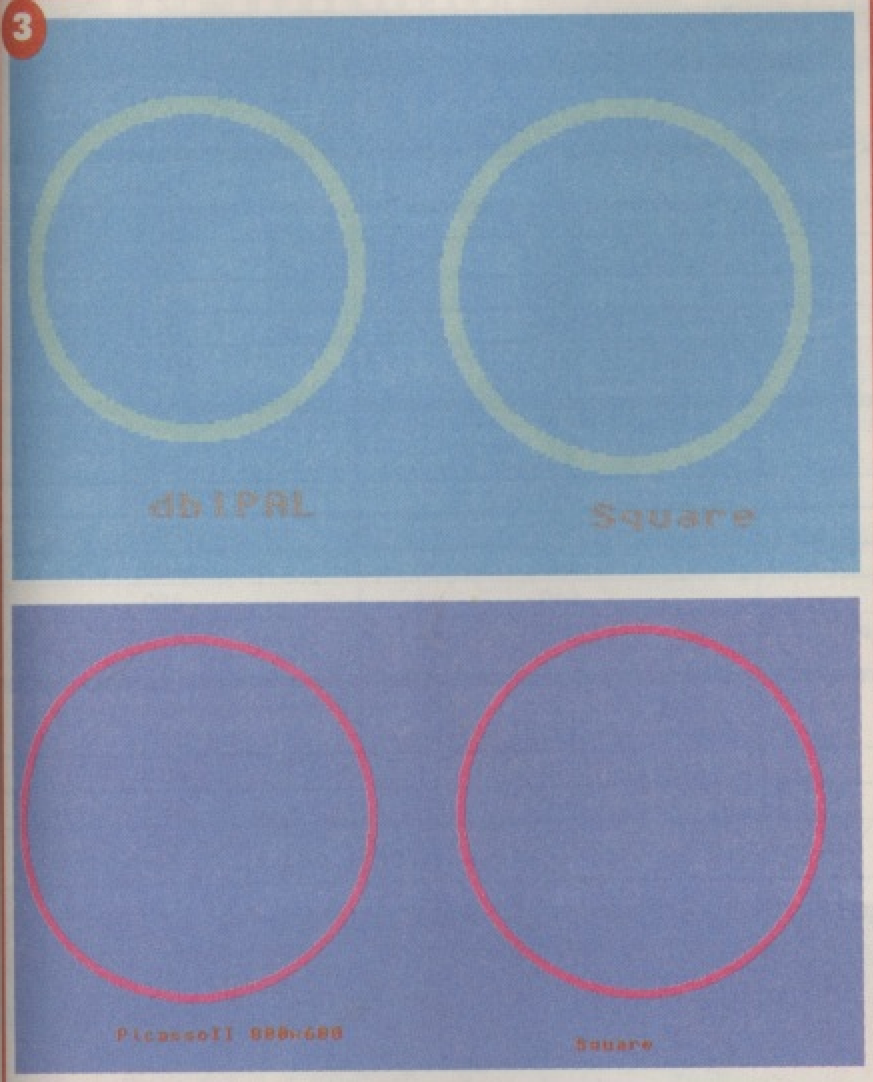
Although the Amiga's many graphics modes are extremely flexible – and the way in which you can flip between different programs using different modes almost instantly is unique – it goes without saying, that when drawing images on the Amiga you need to be extremely careful of your pixel shapes.

When is a circle not a circle?

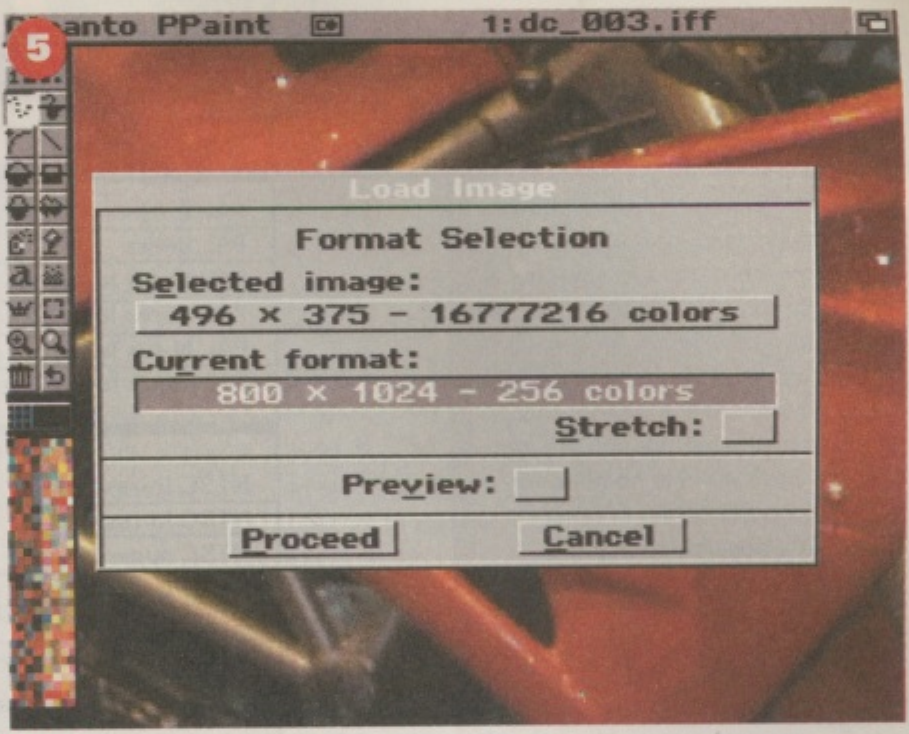
Measuring the "squareness" of pixels is usually done by looking at the



▲ Different graphics mean differently shaped pixels. The "square" circle on the right in each case has been drawn assuming the pixels are square – look at how the hi-res mode distorts it crazily.



▲ The Amiga graphics mode dblPAL is fairly square, but the graphics card output is as square as it gets.



▲ Personal Paint will ask you to change mode, but just say no.

ratio of their width to their height.

In PAL lo-resolution mode for example, the ratio is close to 0.5. This means the pixels are quite long and a circle which appeared round would require about 50 lines down for 100 pixels across. Of course, you don't have to count the lines: when you select the circle drawing tool from the Personal Paint toolbar, the circle will look round no matter what screen mode you are currently using.

This happens because Personal Paint requests from the Amiga operating system the ratio of X to Y, and so it can calculate what dimensions a circle should be in order to appear circular.

Most of the time, this is perfectly acceptable: but not when you are creating graphics for other platforms or generally being extra-artistic.

So what can you do? The obvious answer is to stick to a screen mode which has pixels that are square – that way your circles will look like circles because they are circles. With square pixels, a circle which is 100 pixels across will be 100 lines long.

There is a catch though: as you can see from the following examples none of the Amiga's graphics modes actually have square pixels. 2

The best graphics mode seems to be dblPAL, which as you can see creates circles which are very nearly the same. In this mode, the pixels are very nearly square and so you can use it when drawing pictures for alien platforms. If you do want pixels which are absolutely square, then you'll need to invest in a graphics card. As you can see, the pixels in this PicassoII graphics mode are square as both circles are identical.

The catch is that both PicassoII and dblPAL modes require a monitor which is capable of displaying signals at higher than 15kHz. In theory this means a PC style SVGA monitor, but you should be aware that not all monitors can cope with dblPAL even after tweaking with various hacks and utilities. Some monitors will simply lose vertical hold: I strongly advise that you test any monitor you are considering buying in advance. 3

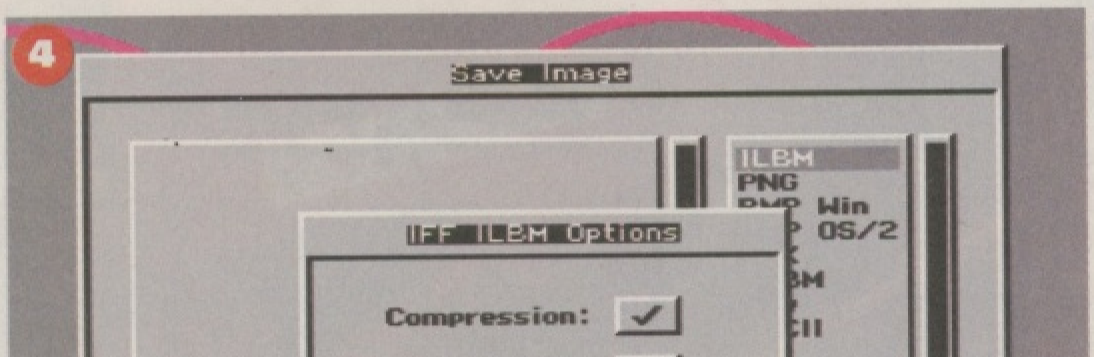
You might be wondering how it's possible to draw all those circles which work assuming square pixels: it's easy. Personal Paint allows to you switch to a drawing mode which automatically works in square pixels, and to activate it all you have to do is select "Square Pixels" from the Graphics option under the Settings menu.

Saving your work

When saving an image from an Amiga graphics program, the software usually embeds the current screen mode as part of the IFF header. This allows other programs, a viewing program for example, to set up the video hardware properly in anticipation for the incoming image.

However, these days there are dozens of different screen modes possible. Worse, you can't rely on even a genuine Amiga coping with all the possibilities. For this reason Cloanto, the creators of Personal Paint, recommend you switch off this option when saving IFF files. This is done by clicking on the Options button on the file requester. Toggle the Screen Format option to off.

With no forced screen mode, any software which loads the image must make an intelligent guess as to which screen mode to use. Normally the software will look at the dimensions of the picture and use that to predict the screen mode which will best display the image. Personal Paint itself is very good at getting the mode right, and most other viewing software can do it



▲ Switch off the Screen Format option to help your images look their best.

perfectly satisfactorily. 4

Changing modes

When you've created a drawing and want to change screen mode, Personal Paint can help you. You'll notice that in the Image Format requester there are two screen sizes displayed. The first, labelled Screen, is the true Screen size.

This controls the graphics mode used. The second is Image: this is the size of the picture you are working on – and there is no need for them to be the same. In other words it's possible to use the Screen display as a window on a much larger work. This is especially useful for using a square-pixel mode such as dlbPAL to work on a larger image.

To do this, first set your screen mode to dlbPAL. Make sure you have the number of colours set properly: if you are dealing with a digitised image, use 256 and switch on dithering as discussed in detail last month. Now select the image you want to load.

Immediately, Personal Paint will detect that there is a difference between the current screen mode (which is 320 by 256) and the image (which is probably a lot larger). It will ask you if you want to change to a new, more suitable screen mode. It's vital that you decline this offer and stick with your dblPAL mode. Personal Paint will then load in the larger image. 5

Now your current screen will act as a window on the larger image. You can scroll around it using the cursor keys, or even select Autoscroll when loading and let the window move about by itself. The important thing is that you are viewing the image with a screen mode with near-square pixels, and this can make all the difference when making adjustments.

When you are finished, the image can be saved as always – and if you switch off the Screen Format option in the save requester, the image won't be any the wiser to being shoe-horned into a smaller video mode. 6

Selected screen modes and their dimensions

Screen mode	Pixels across	Lines down
PAL lo-res	320	256
PAL hi-res	640	256
PAL super hi-res	1280	256
PAL lo-res laced	320	512
PAL hi-res laced	640	512
PAL super hi-res laced	1280	512
NTSC lo-res	320	200
NTSC hi-res	640	200
NTSC super hi-res	1280	200
NTSC lo-res laced	320	400
NTSC hi-res laced	640	400
NTSC super hi-res laced	1280	400
Multiscan	320	240
Multiscan Productivity	640	480
Super72 hi-res	400	300
Super72 hi-res laced	400	600



6

▲ Using a smaller, but squarer, screen mode it's still possible to edit large pictures.

Animations

When creating animations with Personal Paint, it's often worth spending the same time considering the choice of screen mode. This is especially true if you want to incorporate digitised elements in your work, or if there is a chance you might want to convert the animation to a PC format such as AVI at a later date. Square pixels are important in these cases, and you might automatically go straight for dblPAL mode.

Some points of caution: remember that older (pre-AGA) Amigas cannot display dlbPAL mode. Remember also that dlbPAL mode requires a monitor capable of displaying higher than 15KHz (ordinary video) frequencies. Finally, dblPAL mode will not work with genlocks or record to video tape, so if you want to combine your animations with live footage stick to PAL mode.

So there you have it, not all pixels are created equal.

If you intend to share your work with other computer users, for example over the Internet or as part of World Wide Web pages, you should keep this fact in mind. Amiga pixels are the best of course! ■

John Kennedy

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Amiga C Programming

PART 10

This month it's all about multi-tasking, semaphores and fractals.

Hold on to your seats as we dive into some complicated, pretty and very interesting topics for this tutorial. Not only are we going to look at the one of the Amiga's biggest strengths (multi-tasking), but we're also going to try to appease the eye candy junkies out there with a quick look at the world of fractals. And all this is going to be tied into our on-going 'paint' program.

(Mis-)feature

First up, though, is the answer to a problem that inadvertently crept into last month's code. Yes, a bug!

The final version of "main.c" (in "wb3") introduced a "setProgName()" function which was called at the start of the program. It used a couple of DOS library functions ("NameFromLock()" and "AddPart()") but was called before that library had been opened! Modern compilers like StormC and SAS/C will often silently cope with this kind of error and automatically open (and close) the library for you, so it's not always something that will cause problems. But we ought to fix it, anyway.

The first example on the disks ("frac0") has a new version of "setProgName()" (in "main.c"), but the major difference is that we've moved the call to this function into "createAll()", just after the "openLibs()" call. For this reason, both the Workbench message and the program name are passed to "createAll()" (only one will be valid, depending on how the program was started), and the "Lock()" on "PROGDIR:" is now done inside "setProgName()". With these changes, our program is now a bit better behaved.

Semaphore

An arbitration method that can be used between tasks to control access to resources or other data. When one task holds a particular semaphore no other task can hold it.

All those that try to get hold of it will be put to sleep until it is available (although there's often a way of just testing whether a semaphore is available without being put to sleep). When the holding task releases the semaphore, possession will pass to one of those tasks waiting and that task is woken up.

Care must be taken to avoid common deadlock problems like 'deadly embrace', where a group of tasks are asleep waiting for semaphores that are currently held by others in the group (so none of them will ever get woken up again).

Mandelbrot

Fractals were made popular by Benoit Mandelbrot, and his name is remembered in the most common kind of fractal: the Mandelbrot set. Complicated mathematics lie behind the pretty pictures, involving manipulations of 'complex numbers' and iterations of a (surprisingly simple) formula. There are many good sources of information on this beautiful form of mathematics available from your local book shop. In this tutorial we'll look at a straightforward (but inefficient) implementation, which is a good starting point.

The first example ("frac0") adds a new "Fractal" menu item on the "Tools" menu to start the drawing of the fractal. The actual code for generating the fractal is in the "fractal.c" file. The top-level part of the algorithm ("drawFractal()") and the core part of the calculation ("calc()") are shown in Example 1.

Floating point

The algorithm makes use of C's "float" type, which represents a basic level of floating point numbers (ie; basic in their precision). Fractals can be calculated using integers, but the algorithm is more naturally presented using real numbers (ie; those that have fractional parts, too).

As the comments suggest, you can modify which part of the Mandelbrot set is shown by altering the four key numbers. A more complete program would allow the user to modify these values in an interactive way, say by clicking on the current image, but that's not the aim of this tutorial. We want the pretty pattern purely as a consumer of the CPU.

If you run the resulting program from the first example you'll notice that the fractal takes a while to draw (assuming you've not got a really fast Amiga!). While it's drawing you can't draw and the menu items and gadgets appear to have broken. Be careful: when the fractal finishes drawing all the menu and gadget selections will suddenly happen...

What's happening is that the IDCMP message loop is busy calculating the fractal and so can't respond to your new requests. It's only when the fractal is completed that control returns to message processing. The GUI has been 'locked out' while the program was busy.

Mandelbrot

Benoit B. Mandelbrot is a French mathematician and the father of fractal geometry.

The most common kind of fractal is known as the Mandelbrot set in recognition of his work.

Multi-tasking

This is a way in which a computer can give the impression that it is working on several things at once. If a computer can multi-task then it may do this in a cooperative or pre-emptive (time-slicing) way.

The former is used by the MacOS, and programmers must explicitly allow the computer to multi-task at key points in their programs. The latter is nicer, and it's the way the Amiga works, with each task being allocated a particular slice of time in which it can run.

This has the benefit of forcing a degree of 'fairness' into the way programs and tasks run together.

Multi-tasking

So, we've at last made it to the real purpose of this tutorial: the Amiga's ability to multi-task in a very helpful way.

The goal is to separate the fractal drawing code into a separate task so that choosing the "Fractal" menu item just has to spawn this new task. Our main program will then return to the message processing loop and respond to the user, while the fractal task draws the fractal at the same time!

Normally you can get away with using the normal single task for your program. It's only when you need to do several intensive things at once that you should consider handling multiple tasks. There are many issues involved with multi-tasking your program, so it's not something for the faint-hearted. This tutorial can cover

only the basic principles, so while it is instructive it's by no means the whole story.

Fractals

A fractal is a geometric pattern that has great detail at all levels of magnification. However, the beautiful and intricate patterns are often the result of very simple equations.

Fractal patterns are common in nature, including obvious examples like snowflakes and tree branches. In fact, fractal patterns are exploited in modern compression methods for digital photographs (especially for real life images).

Semaphores

The second example, "frac1", adds a small amount of code around our fractal algorithm to turn it into a separate task (see the snippet in Example 2). The important feature is the use of semaphores; there are two: one to signal the running of the task and one to control its function (drawing). Why do we need to these semaphores?

Well, one of the conditions of creating tasks is that your program is responsible for managing the tasks and their memory. The easiest way of doing this is to stop any tasks you create before the program finishes. To do this we need a way of communicating with tasks, and semaphores are

Example 1

```
/* Draw a fractal in the window */
void drawFractal(struct Window* win)
{
  /* The width, height and number of colours for draw-
ing */
  int w=win->Width, h=win->Height, d=1<<win->WScreen-
>BitMap.Depth;
  /* The snapshot of the mandelbrot set to draw */
  /* (Adjust these numbers to draw different fractals)
*/
  float width=4.0, height=4.0, top=-2.0, left=-2.5;
  int x;
  for(x=0; x<w; x++)
  {
    int y;
    for(y=0; y<h; y++)
    {
      /* Set the current colour */
      setFgPen(win,
calc(x*width/w+left,y*height/h+top,d));
      /* Draw the pixel */
      WritePixel(win->RPort,x,y);
    }
  }
}

/* Calculate the colour of a particular point */
/* (This is the number of iterations of the equation
*/
/* needed to exceed the bound value) */
static int calc(float x, float y, int d)
{
  float xc=x, yc=y;
  int it;
  /* Adjust the 16.0 to give different colour spreads
*/
  for(it=0; it<d && (xc*xc)+(yc*yc)<16.0; it++)
  {
    float oldx = xc;
    xc = oldx*oldx-yc*yc+x;
    yc = 2.0*oldx*yc+y;
  }
  return it;
}
```

Example 2

```
/* The mechanism by which we will control our task: */
/* One Semaphore for drawing, the other for running */
static SignalSemaphore drawing;
static SignalSemaphore running;

/* Initialisation done when program is started */
void initSemaphores()
{
  InitSemaphore(&drawing);
  InitSemaphore(&running);
}

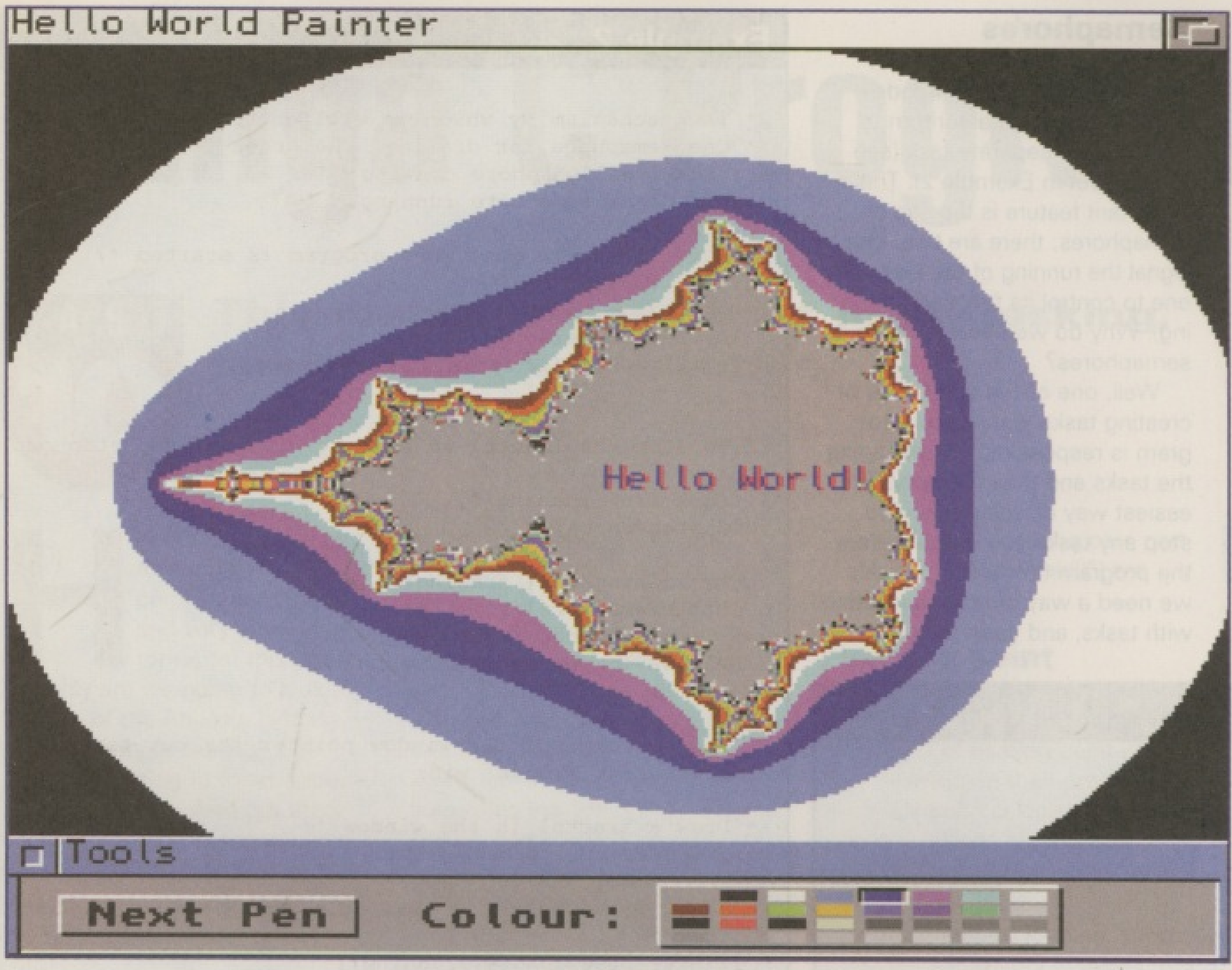
/* To stop the fractal we stop it drawing then stop our
*/
/* task from running */
void stopFractal()
{
  ObtainSemaphore(&drawing);
  ObtainSemaphore(&running);
  ReleaseSemaphore(&running);
  ReleaseSemaphore(&drawing);
}

/* A local copy of the window pointer for our task */
static struct Window* win;

/* Draw a fractal in the window */
void drawFractal(struct Window* w)
{
  /* If the semaphore is available a task is not already
running */
  if(AttemptSemaphore(&running))
  {
    struct Task* task;
    ReleaseSemaphore(&running);
    /* Make a copy of the window pointer for the task
to use */
    win = w;
    /* Create a new task which will draw the fractal */
    task = CreateTask("HelloPainter-Fractal",-1,&frac-
tal,4096);
    if(task == NULL)
      printf("Error: could not create task\n");
  }
  else
    /* The semaphore was already taken, so stop the task
*/
    stopFractal();
}

/* The starting point of our task */
static void __saveds fractal()
{
  /* If the semaphore is available we can start running
*/
  if(AttemptSemaphore(&running))
  {
    /* ... Other declarations ... */
    int x;
    /* Check whether we can continue drawing on each x
*/
    for(x=0; x<w && AttemptSemaphore(&drawing); x++)
    {
      /* ... Rest of drawing code... */

      /* Release the semaphore before checking again */
      ReleaseSemaphore(&drawing);
    }
    /* Release the semaphore to indicate the task has
finished */
    ReleaseSemaphore(&running);
  }
}
```



▲ Here's one I made earlier.

one of the simplest mechanisms.

For our example, we'll require that when our fractal task is running it must hold the "running" semaphore. If it is allowed to draw then it will be able to obtain the "drawing" semaphore, which it must then hold only while it is drawing a small part of the fractal.

To stop this task all we need to do is try to hold the "drawing" semaphore (which will eventually cause the task to stop drawing), and then try to hold the "running" semaphore (when we obtain it we then know that the task has successfully terminated).

Our "stopFractal()" function must be called before closing the drawing window, so "closeGUI()" is extended to cope with this. Also, the menu item now acts as a toggle, stopping and re-starting the drawing.

Tasks

There are a few issues concerning the mechanics of creating a task. The "CreateTask()" function is supplied with a name for our task, a priority (lower than normal, -1), a pointer to our drawing code (the "fractal()" function) and a stack size (the standard 4096 bytes).

If you're observant you may have noticed the funny "__saveds" in the definition of the "fractal()" function.

This is a special compiler option that signals to SAS/C and StormC that the function is going to be used from a task other than the main program task. To this end, the compiler will insert special code so that this function can access the data of the main program, including the library base variables (so we can call library functions like "WritePixel()") and the local copy of the window pointer ("win"). Other compilers may offer this functionality through something like a special "getA4()" function that must be called at the start of the "fractal()" function (Consult your compiler manual if this code doesn't work for you).

Another concern when making new tasks is that a simple task cannot access DOS functions such as file I/O (and this includes things like "printf()"). Only full processes (like our main program task) can use DOS library functionality.

Accuracy and efficiency

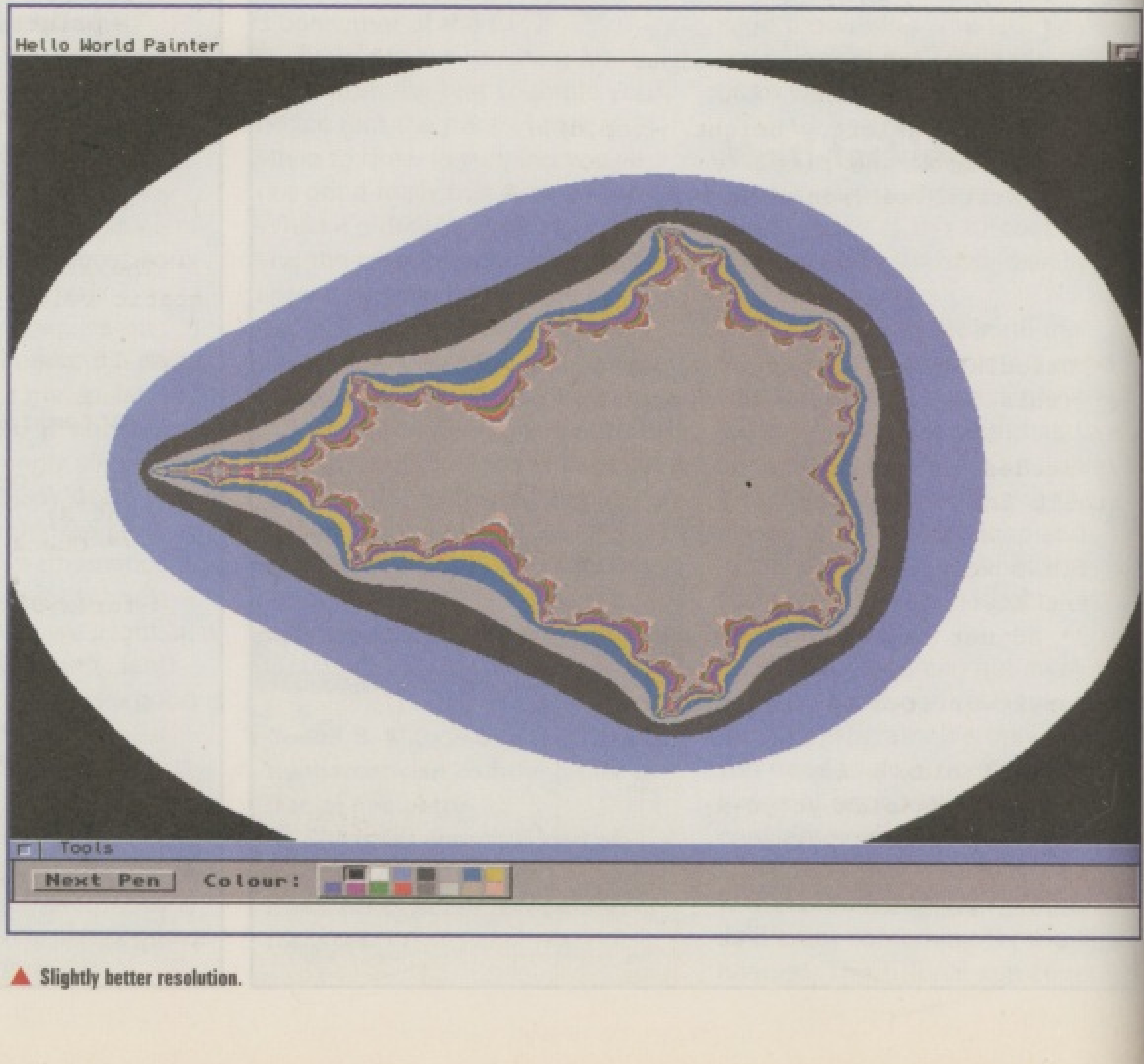
The second example uses "double" in place of "float" in the fractal calculation. This is a floating point type with more precision than "float", enabling deeper views of the fractal to be shown accurately.

Some efficiency is gained in the third example ("frac2") by pre-calculating the arguments to "calc()", rather than having them recalculated on each loop. Notice the use of an array (managed by the pair of C functions "malloc()" and "free()") and the extra variables to hold the squares of "xc" and "yc". You might also like to fiddle with compiler options, such as getting it to use your FPU.

However, more dramatic improvements in drawing speed can be achieved by using a much better algorithm. Check out books on the subject for more details.

Next month we will start tidying up a few of the rough edges of our program and make it a little more user-friendly. I'll be seeing you then. ■

Jason Hulance



▲ Slightly better resolution.

Back Issues

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Features: Get a job in graphics, plus Imagine 4.0
Inside: Art Effect, PPaint 7, SWOS 96-97, Fighting Spirit, Chaos Engine 2 ...



FEBRUARY 1997
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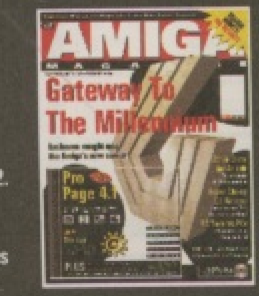
MARCH 1997
Disks: OctaMED SoundStudio (full program) Chaos Engine 2, Chaos Engine 2 AGA demo
Features: Turn your Amiga into a pro studio. Printers: problems solved.
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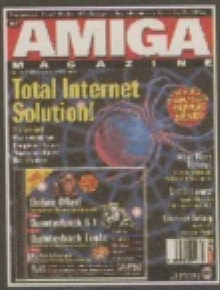
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Inside: Final Writer '97, Siamese RTG 2.0, Burn It...



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Disks: Dogfight, Turbo Print 5 Lite, Storm C Compiler
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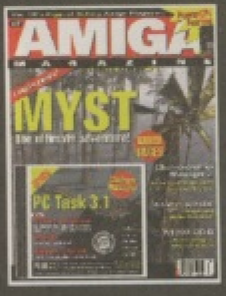
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Inside: Fusion Mac Emulator, Civilization, Mk II EZ Tower, Storm C



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Features: D.I.Y. AIR Link, Aladdin 4D V5.0, Hydra A1200 Ethernet, Sensible Golf
Inside: Epson Stylus Photo, OxyPatcher, More TFX Tips, Visual IFX, Envoy 2.0,



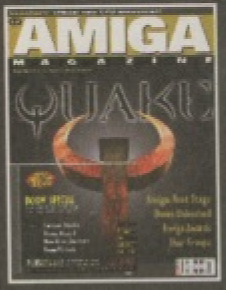
DECEMBER 1997
Disks: PC Task 3.1, Dir Work 2.1, Workbench enhancements; icons, backdrops etc.
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Disks: Doom, NetPBM, Cartoon Studio, AmIRC, VirusChecker III
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Inside: TurboCalc, HiSoft C++, WebFTP, Pagestream 3.3, Ultimate Super Skidmarks



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Surf's Up!

Neil Bothwick brings you more web related info, including news of the latest version of the Miami browser amongst other things.

Miami 3.0

Version 3.0 of Miami is out now. With many enhancements over the previous release version, the upgrade is well worthwhile. Anyone who registered after 15th June 1997 can upgrade for free, and the charge is only $12 (£7.50) for anyone else. One of the most significant changes for many people is the separation of the GUI from the main stack.

This means Miami can use different GUI engines without changing the main program. MUI and GTLayout (GadTools) interfaces are provided. It also means you can use Miami with no GUI loaded at all, going on and offline by sending commands to its ARexx port from another program, like a Dock button or even your browser.

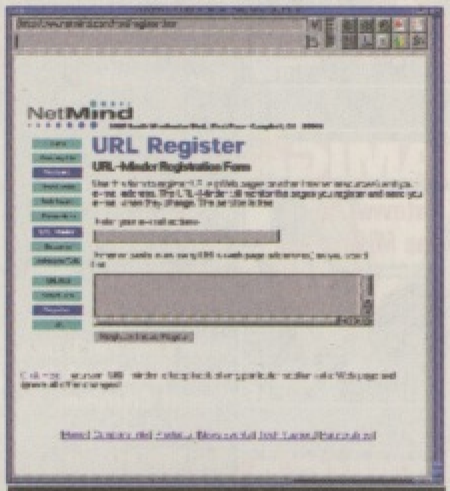


Miami 3.0

There have been many other improvements, including the addition of PPC support functions, ready for use by any new PowerPC based Internet software. By the time you read this, the new Genesis TCP stack, derived from AmiTCP, should have been released. It will be very interesting to see how the two compare.

NetMind

How often do you visit the same Web site time and time again, just to see if anything has changed, then the one day you decide not to bother, something major is updated?



NetMind

NetMind provide a service called URL Minder that will keep track of any pages you specify and notify you by email whenever they change. You can specify how the notification should work, including having the changed page sent as an attachment to the email. Registering http://www.cucg.org/aminew.html with them means I receive the new links page from the Amiga Web Directory each morning, without needing to manually check the site.

As long as your email program supports ARexx, you should be able to view this directly in your browser. You could also use it to monitor the download pages of software support sites, so you know immediately a new version is released.

You can register as many URLs as you wish and the best part about this service is that it's free. Just be sure to make http://www.cu-amiga.co.uk the first page you register, so you get to see the latest news from CU Amiga as soon as it is released.

The service is at http://www.net-mind.com/URL-minder/

POP3 mailbox utility

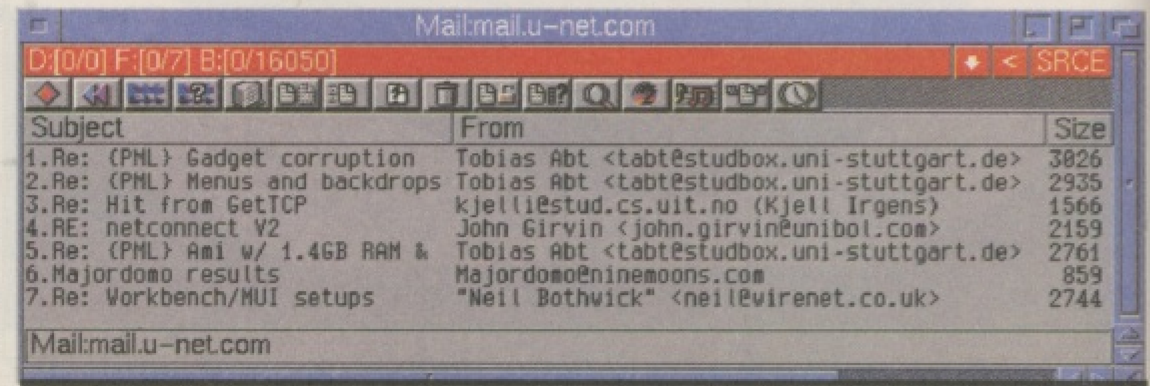
One of the most common support questions I get from users of certain email programs is that their mail download gets so far and stops.

Every time they try to download mail it stops on the same message. Almost invariably this "bad" message is junk mail, with something seriously wrong with its header information. Until now, the only solutions have been to install another email program for a single download, or telnet into the mailbox to delete the mail manually.

Neither of these is a particularly user-friendly option. One thing the Amiga seems to be lacking is a decent mailbox browser. PC users have programs like ScanMail that let them browse their mailbox, viewing the headers of mails and deleting any junk mail.

Now there is a POP3 module for Directory Opus. Once installed, you can access your mailbox in a standard Opus lister, each mail being treated as a file. In the early version I received today, you can only copy or delete each mail, but the author states he will add an option to view headers in a future release. ■

Neil Bothwick



POP3 mailbox utility

NetGod speaks

Are you using shareware software? Have you registered it?

Shareware and commercial programmers are leaving, or considering leaving, the Amiga market. Why? Because it's just not worth their while continuing. People say things like "we should support these authors by registering their products", but it's much simpler than that. If you use it you should pay for it – just like any other product.

We have some excellent software on the Amiga. How many other platforms have three independent Web browsers, all of such a high quality, and all started as shareware? There are plenty of reasons given for not registering: "I can't afford it right now"; "it's too much hassle sending money or eurocheques overseas"... and many more like it. But if you use these programs after an initial evaluation period, you are obliged to pay for them.

How would you feel on payday if your employer said "I can't afford to pay you this week, maybe next week" or "it was too much hassle to go to the bank for your wages"? You have a right to be paid for the work you do, and a software author isn't any different.

If you use his work, please pay the going rate, because if you don't, it will be the author, and his software, that are going.



Surf of the Month

This month there is more sinking than surfing going on, with a look at the Titanic web site, among others.

Information-starved Amiga enthusiasts are pouncing on every scrap of news they can find, with the result that the newsgroups and IRC channels are rife with speculation and rumour.

Little of it based on hard facts, much is based on misinterpretation of other rumours. Meanwhile, there are a few web sites where some hard information can be found. The first place to look has to be Amiga International's own site. The news page is updated at irregular intervals, but some of the information is useful. For example, after the statement about the use of both 680x0 and PowerPC as the CPU for future machines was leaked out at the end of January, there was a reassuring clarification here in a couple of days.

For general news on Amiga developments from all quarters, the Amiga web Directory is still the most comprehensive resource on the Web. With links to almost all new news stories as well as new sites and other updates, just about everyone with an Amiga web site or story will notify the Amiga Web Directory of anything new. This isn't just a news service though, Amiga Web Directory has in-depth information on hardware, software, FAQs, commercial organisations, user groups and its own search engine. And don't forget to keep an eye on CU Amiga's own web site for up to date news, as it happens.



Amiga Web Directory



192



Amiga International

URLs

Amiga International	**http://www.amiga.de**
Amiga Web Directory	**http://www.cucug.org/amiga.html**
CU Amiga	**http://www.cu-amiga.co.uk**
NetMind	**http://www.netmind.com/**
URL-minder/ mozilla.org	**http://www.mozilla.org/**
Titanic	**http://www.titanicmovie.com/ index2.html**
UCI Cinemas	**http://www.uci-cinemas.co.uk/**
Yellow Pages	**http://www.yell.co.uk**
192	**http://www.192.com**
Star Trek	**http://www.startrek.com**



Mozilla

Mozilla

Following the recent announcements about the release of source code for the next release of Netscape Communicator, a web site has been set up to provide information for programmers on all platforms. Run by Netscape employees, mozilla.org has been set up as a clearing house to coordinate and combine the efforts of independent developers working with the Netscape Communicator source code.

Whether this is a genuine attempt to widen the development arena of their product, or an anti-Microsoft tactic remains to be seen. This is a site only for programmers interested in working with the Netscape source code, it's not a place to post "please port Netscape Communicator to the Amiga" messages.



Titanic

UK based information

I went to see Titanic the other day (and it was excellent), so I decided to check out the Titanic web site when I got home. The site does a good job of capturing the atmosphere of the film, with plenty of background information on the production and cast.

There are stills and movie clips to download, although the resolution of the stills was rather limited. For general cinema information, there are several sources to use. UCI Cinemas have their own web site, with details of films showing in each area. You can also subscribe to Cinemail, a weekly email bulletin on film releases and where they are showing. The online Yellow Pages also has a film finder section, showing what's on where, film summaries and theatre information. This is the official BT Yellow Pages site, containing all the information you would expect to find in their directories, plus a whole lot more.

There is also an online alternative to directory enquiries; www.192.com. Some of the information is out of date, but it is a lot easier to find details of someone when you don't know their address than normal Directory Enquiries. But don't try searching for J Smith with no town name unless you have a fast connection and a lot of time...

Unlike the Yellow Pages site, this one has no connection with BT, despite the name, so don't consider any information you find in here to be official or definitive. However it can be a very useful site.

Make it so

A very large proportion of Amiga users are Trekkies (probably far too many to be considered healthy :), so it was particularly annoying that the official Star Trek web site was hosted on Microsoft's network, making access with other browsers difficult.

Well, now they've got their own domain and Amiga-using trekkies can revel in all the delights at www.startrek.com ■

Neil Bothwick

Wired World



YAM is a top email package, but with no English docs it's a pain to set up. Not anymore though...

YAM, yet another mailer, has become one of the most popular freeware programs on the Amiga. YAM has always been a comprehensive, easy to use and feature laden email client. Now with the release of the 2.0 'preview', one of the best got even better.

Unfortunately the preview version doesn't come with English documentation so as usual, Wired World comes to the rescue with the entire low-down on how to configure and extract the most from YAM 2. You can find YAM 2 on the cover CD-ROM in the Magazine directory. Please be aware that as it's a preview 'beta' there may be some bugs remaining. It's always best to check the YAM home page at http://www.yam.ch to get the latest version.

YAM requires a recent version of MUI to be operated, just like the previous versions. You'll need this installed before even getting started. The YAM 2 installer itself is straightforward but bear in mind that it doesn't create its own YAM directory so you should tell it to do that and install YAM 2 there for the sake of simplicity.

First Steps

To get started, of course, you'll need all the details to hand that were in your previous email client. If this is your first time installing an email client, you'll need those details from your Internet Service Provider. Clicking on the far right button at the top of the interface (with a question mark), activates the configuration GUI. The very first page is suitably called First Steps and here you could fill in your full name (with no funny characters or punctuation) and email address. It's vital that you fill the email address in correctly or no-one will be able to reply to you!

The POP3 server will be something like mail.u-net.com or pop3.demon.co.uk. It's specific to your ISP and you'll need to find out exactly what it is or you won't be able to pick up email. Likewise the password – also set the time zone you are in. This is used to insert special information into emails so that a reader anywhere in the world can tell what time, by their time, an email was written. Now move to the next configuration screen and click on TCP/IP in the left hand litter.

YAM 2 has already filled in some details here however the address used to send mail may not be the same as used to receive it. In the case of U-net it would be send.mail.u-net.com in the 'Server' box and post.demon.co.uk for Demon users. You will need to find this out from your ISP. You can leave the Domain box alone. Now click on your email address that's now in the lister. You shouldn't need to change anything here except for the User ID.

This may be different from your username (the bit before @ in your email address) but it's usually the one that's used when logging onto your ISP. The password will have been filled in so leave that and the rest of the settings on this page alone. Move on down to the Signature option in the left hand lister. Here you might like to just type your name for now. Something like;

```
Regards,

Joe Bloggs - joe@bloggs.net
```

Make sure the 'use signature' box is checked and leave the other options alone for now. One slightly annoying feature in YAM 2 is that it will insert welcome phrases and a Greetings phrase (actually it's a sign off) as standard. It also won't wrap lines by default and we need to fix this. Click on the Write option in the left lister and get rid of the contents of the Welcome Phrase box and Greetings Phrase box. Now click on the Autom. Line Breaks box, save your settings and we're ready to test everything out!

Now try it out

Link up to the Internet and click on the Write button at the top of YAM 2's GUI. A Write Message window will appear. Fill your own email address in the To: box, fill in a subject and you should see your signature you wrote earlier in the email.

Naturally you type above this. For now though, just hit the Send Now button. If the email refuses to send, you have the address you put in the Server box in the TCP/IP configuration wrong. Ask your ISP what it is.

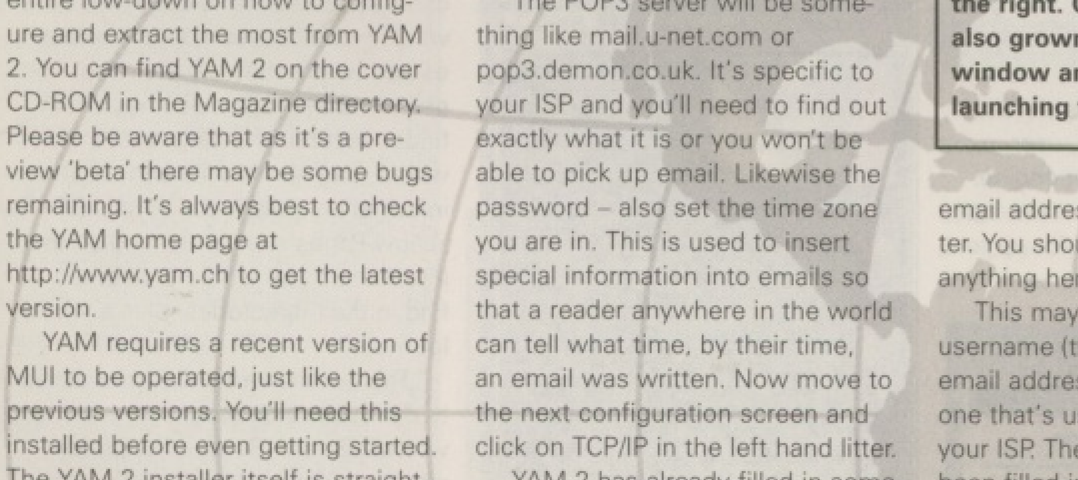
If it did send, you can click on your Sent folder and you should see a copy of your email there. Now press the Get button at the top of the YAM 2 GUI, the one with the globe icon. With luck, your email should appear in your Incoming folder and perhaps even some others if anyone else sent you email.

Click on the Incoming folder and you'll see the messages. Double click on them and a message reader window will appear showing you the email. At this point you should test

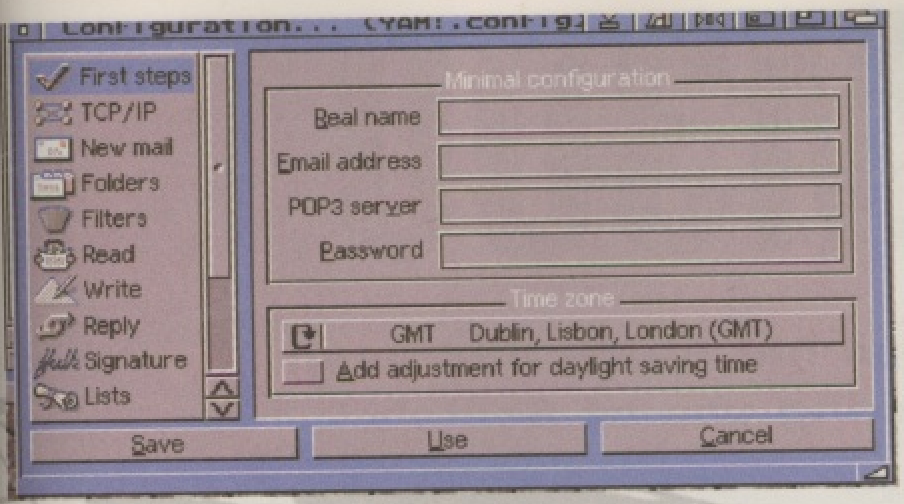
GUI changes

YAM's GUI has changed quite a bit from the previous version. In the past MUI tabs were used to select incoming and outgoing/sent mail. Separate custom folders were accessed through an archives tab and a drop pop up menu, YAM 2's new system is a good improvement over that. In the left hand lister we have a list of folders starting with the Incoming, Outgoing, Sent and Deleted folders. By clicking on those, the right-hand litter will display a list of messages in the folder – this way everything is on the same tab and there's not a drop-down menu in sight. Lovely!

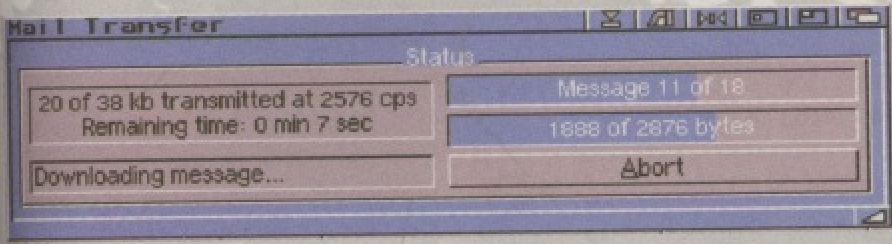
The configuration has also moved to the now familiar, icon + name in the left-hand litter with a sub-page with the configuration details in the right. Once again it's attractive and easy to navigate. YAM 2 has also grown browser style icon+name buttons on the top of the main window and these are used for the most basic functions as well as launching the address book and bringing up the configuration GUI.



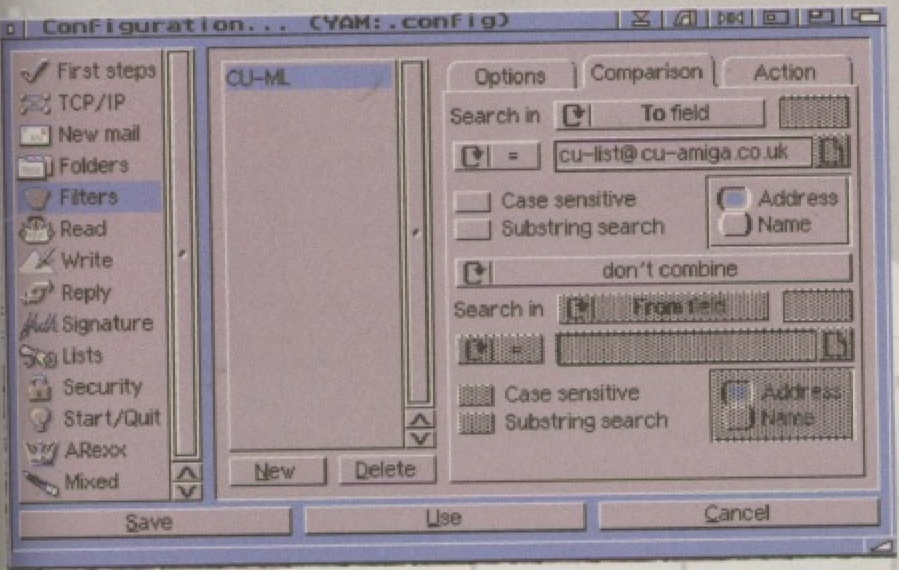
▲ Starting with a clean slate, YAM 2 looks much improved from the original.



▲ The new configuration GUI is easy to navigate also.



▲ That's what we like, lots of lovely email arriving.



▲ Replying to a mail sure opens a few windows. In the left lister we have the CU-ML folder clicked, in the right we see the list of messages. We click on a message to read it in a new window and click Reply to open yet another window to reply – phew!

Reply. When you've opened your message, hit the Reply button and just press Send Now.

Select Get again and if your reply turns up in the Incoming folder, you have a 100% working YAM 2!

Filtered please

One of the most useful things to be able to do with any email package is to filter mail. This matches emails against a list of checks and accordingly files them in separate folders. In this example we'll set one up for the CU Amiga Mailing list.

Go to the Folders item in the configuration. Click on the new button and a file requester will appear saying Archived 1 doesn't exist. This is a little silly of YAM 2 but what you'll need to do is find your YAM 2 directory and navigate to it.

Then you need to type in the bottom a directory name for our new folder. Try 'cuml' for CU Mailing List. Now change the Name to CU Amiga-ML, I put ML on the end of all my mailing list folders for clarity.

Also put cu-list@cu-amiga.co.uk in the To: address box in the Mailing List Support bit. This enables you to simply click on this folder and click Write and you will be able to write a new message directly to the mailing list.

Now we need to filter all incoming email for the CU Amiga ML into our new folder. For that, go to the Filters part of the configuration. Click New and enter CU-ML here. Move to the Comparison tabs. Now we can tell a CU Amiga ML email because they're always written to cu-list@cu-amiga.co.uk, so cycle the Search In gadget to read 'To field' and insert cu-list@cu-amiga.co.uk in the box underneath.

Now move to the Action tab and click on the Move box. Now because you made a folder earlier, when you click up on the pop-up gadget you should see the new folder you made so select this. Now save your configuration.

If you're on the mailing list, new emails will arrive and be teleported handily to the new folder and thereby not clog up your Incoming. In this way only emails that are written specifically to you should be in your Incoming so you can give that your direct attention.

If you are not already on the CU Amiga Mailing list then of course send an email to listserv@cu-amiga.co.uk with 'add joe@bloggs.com' as the only line in the email. Obviously you should insert your own correct email address after the add.

I hope to see you on the mailing list with more suggestions for next month's Wired World! ■

Mat bettinson

Replying to email

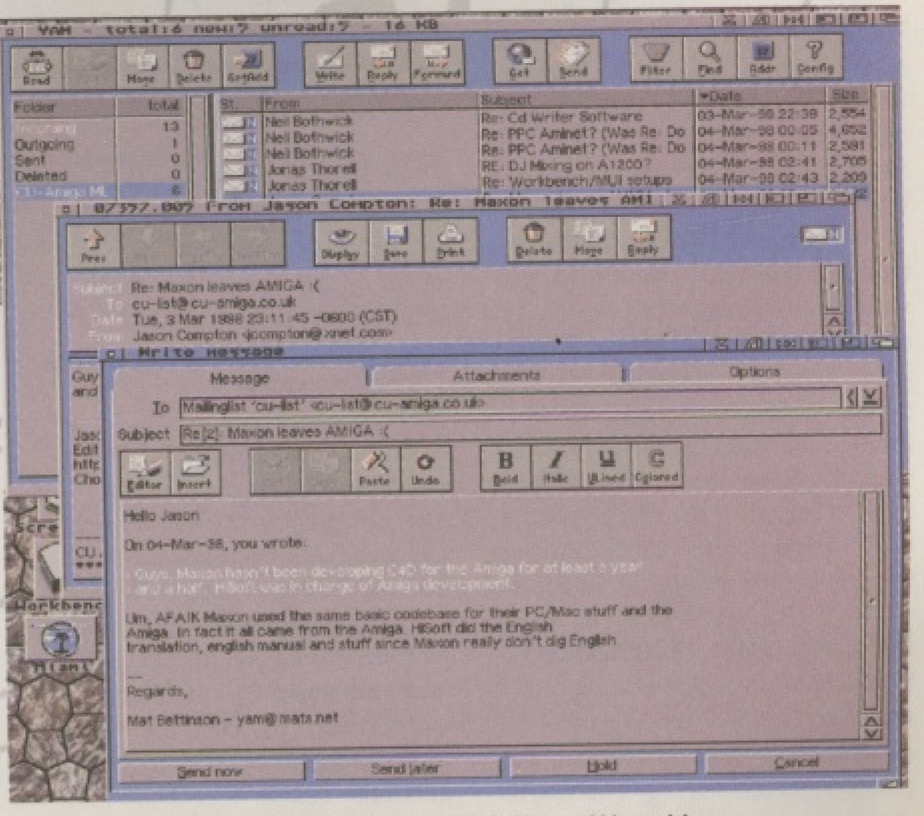
When you reply, YAM 2 pops up its internal text editor and the text that was written by the original sender has some quote symbols ('>') in front of each line. If the mail you replied to was already a reply, it probably also has some quoting in it and YAM 2 will nicely highlight that for you in yellow.

As always, the job in hand is to cut out all of the quoting except for the bits that we specifically want to reply to. To do that, drag the mouse over the undesired text and click on the Cut button on the GUI. It appears that keyboard shortcuts to cut text don't work in this version of YAM 2, strange.

You might notice that YAM 2 will pop up a requester when replying to some emails. This is because it has detected there are a few possible senders of the email, most often the case with mailing lists. In this way you can choose to send your reply to the mailing list (whose address should be obvious) or to the individual only. Obviously if the email is not of great interest to hundreds of other people, you should send it to them directly rather than the mailing list.

You might like to spend time customising your signature (but don't make it long) and the 'Hello firstname' and 'On <date>, you wrote:' things that YAM inserts at the top of your replies. These can be found in the Configuration/reply page and they have special codes such as %f. %f will be replaced by the name of the person who the email is from.

The \n codes make carriage returns. You can be a little inventive and personalise your responses so they're a little more like you. Have fun!



▲ Looks complex but it's not all that hard to set up YAM 2's filters and it's worth it.

Scala MM300

PART 3

Take control of your Amiga hardware and even external hardware, by making use of Scala's powerful ARexx port.

Scala can do everything you could possibly want to do on your Amiga. Yes, I know that's quite a bold claim to make, but it's true. The reason is simple: if you can't achieve your goal directly from within Scala, you can make Scala launch another program or utility and therefore get it done that way. Scala supports ARexx, which means any other program with an ARexx port can communicate. Scala can also execute a Shell command, or start a Workbench program and then wait for it to finish, or carry on multitasking in the background.

Here's an example: a few months ago we reviewed the astronomy program Distant Suns. Distant Suns is capable of calculating the position of the Sun, Moon, stars and planets. It also has an ARexx port, and is capable of providing all these features via an ARexx function call.

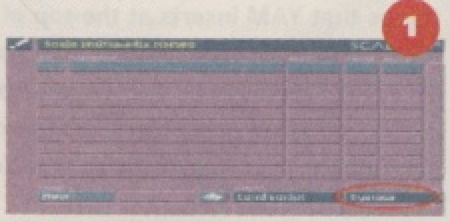
This means that if Distant Suns was running on your computer as well as Scala, Scala could use Distant Suns to provide it with data – such as the phase of the Moon. The Scala script could then draw a suitable lunar object: even though Scala knows nothing about astronomy, it knows enough to be able to ask another program which can tell it the answer.

That might seem quite an esoteric example, but it simply demonstrates that Scala can talk with almost any other programs. A more down-to-earth requirement might be to make Scala control a CD-ROM player connected to your Amiga in order to playback music as a backing-track or narration. As long as you have an ARexx controllable CD utility, you can control it from within Scala.

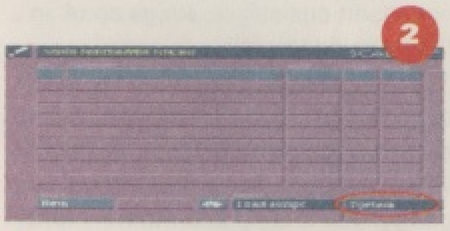
Ready, aim, execute!

Scala communicates with the outside world in this way via Execute events. These are events which are created and used in a similar way to wipes or sound effects, and they are listed in the Main Menu alongside of them.

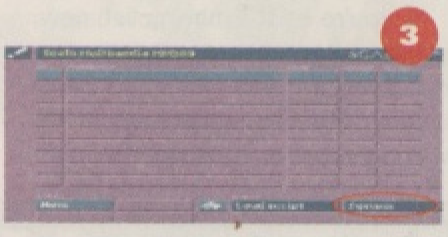
Well almost: by default the Execute events won't be listed, and so you need to adjust a few settings in order to make them appear. Here's how:



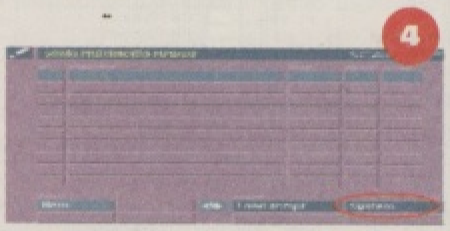
▲ From the Main Menu control, click on the System Button.



▲ Click on the item under Configuration, until the Scala EX options appear.



▲ Drag and drop the Execute bar to re-order the list of items.



▲ When you return to the Main Menu, notice how Execute has appeared.

Adding Execute events is easy: all you have to do is click on the Execute event in the list, and up pops the window. Here you have several choices: the most important is the cycling gadget which switches from Workbench to CLI to ARexx and back again. This is the type of event which you require. The name of the program or script is entered in the bar beside it: click with the mouse to bring up a file-requester.

Before we create an example, a word of warning: launching a program from within Scala is a good way to lock-up your system, so save everything before starting your experiments. Here's the example:



Create the Execute event, and make it a CLI object. Enter "c:dir >ram:plop" into requester, and make sure the Wait and Interactive controls are both turned off.

Now click on the Show button, as this launches the event as a test to see if you got it right. All being well, after Scala has called the DIR command, you should find a text file in your RAM disk containing the list of all the files that are in the current directory. As the Amiga is a multi-tasking computer, it can perform several operations at once. This gets confusing if you are trying to create a one-step-at-a-time presentation.

Scala provides the Wait and Interactive commands for you to try and keep control over the system.

Wait

When turned on, this forces Scala to wait until the command is executed before proceeding.

Interactive

When turned off, Scala will continue running its script after the program has been launched.

It won't wait for the program to finish before moving on to the next element in the script. ■

John Kennedy

Font foibles

If you are experiencing problems associated with a missing font after trying to run Scala, then try running the FixFonts utility.

This will patch up the internal font structure to make sure the Amiga knows that the fonts required by Scala are present.

Top Tips on Scala and Airlink

● Build yourself the Airlink InfraRed controller.
This comes with ARexx utilities which can transmit and receive IR commands: for example, Scala can use Airlink to start and stop any IR remote control audio CD player. An example script is provided with the Airlink software: now Scala can control an external hi-fi for it's backing track.

● Remember IR control isn't limited to CD players.
Using exactly the same hardware, Scala can even control your video recorder. This means you can incorporate real video in your projects. Pass the video into the Amiga via a Genlock, and you can create a very professional show.

● Use Airlink with a spare IR remote control handset to provide a way of controlling your presentations. Throw away the mouse, and use a wireless handset to flick from page to page.

● Still with Airlink, combine it with the Scala CD-Player example project above, and build your own remote control CD player. Signals from your IR handset are received by the InfraRexx software and passed to Scala. Scala then triggers the ARexx scripts controlling the CD-ROM drive.

● The most ambitious project is to use Airlink to control a video recorder whilst it is in record mode. This means you can use Scala to load up sections of a large animation, and record them to videotape automatically. You'll need to take into account how long your VCR takes before recording begins, and delay the playback of the animation accordingly.

Example: controlling a CD player

In this example, we're going to use Scala to control an internal CD-ROM drive. This is of most use when an audio CD is in the drive of course, in which case Scala can turn it on and off and therefore give itself a professional soundtrack with the album of your choice.

The biggest problem in a situation like this is finding the utility which sits in the middle of Scala and the hardware you want to control. In this case, I'm using the utility OptyCDPlayer, which is available from the CU Amiga CD-ROM number CUCD17. As you would expect, OptyCDPlayer has an ARexx port, and also comes complete with example ARexx scripts. All we have to do is trigger these scripts from Scala and we have instant control over the CD-ROM drive.



Step 1

The first page is the only page which will actually display anything on-screen. It has a background, a title and two pieces of text which will become buttons.

For the moment simply place them in the middle of the screen. In this example, only two actions are dealt with: Eject, and Play/Pause. Alter the Pause setting to make sure the opening screen always leads right back to the opening screen.

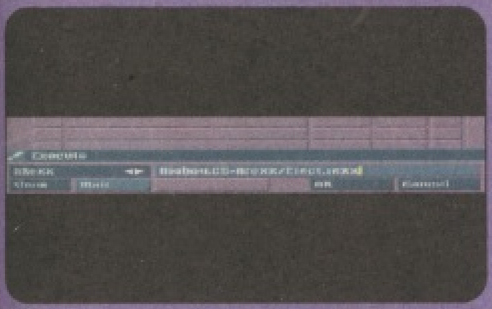
You can break out of the program with the ESC key.



Step 2

Create another page in the script. This page won't actually display anything, it simply contains the Execute event which drives the CD player.

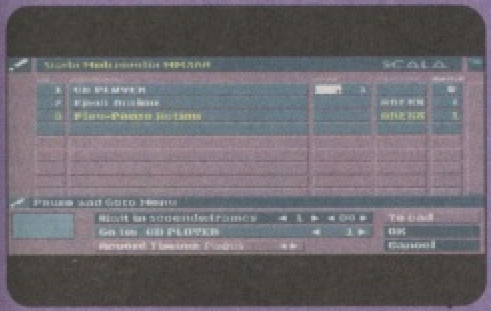
To create an empty page like this, click on the next empty slot in the number column. You can then rename the page to something more useful than Untitled and click on OK.



Step 3

Now edit the Execute event. We want it to consist of an ARexx script, and the script itself is provided with the OptyCDPlayer program.

We only need to find it in the file-requester, and that's all the hard work done. Make sure Wait is turned off. Make sure this Execute event page also returns back to the opening page.



Step 4

Create a third page. Again, this one should be empty apart from an ARexx command. This time the command is the Play/Pause action.

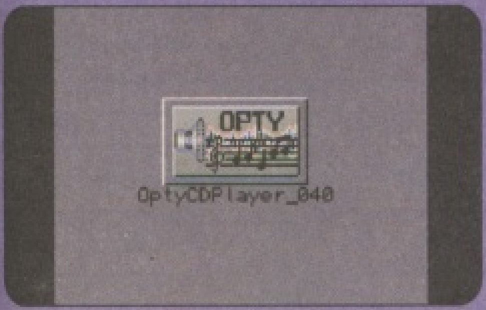
Once again, when this page finishes it should return control to the start of the script. When you want to create your own ARexx scripts, simply enter them into a text editor and save them to disk



Step 5

Return to the first page. Click on the 'Buttons' button, and create two buttons by selecting the area around the relevant text.

The actions for each button should be obvious: they cause the flow of control to jump to the relevant page which triggers the necessary ARexx script. The result is that when the user clicks on the button, the CD player either ejects, or goes to play or pause mode.



Step 6

That's it! All you have to do now is make sure the OptyCDPlayer is installed and running in the background. Try adding another Scala page to start it working, if you want to make the process entirely automatic.

Once the Scala script is running, click on the buttons and you should have control over the CD-ROM drive.

Reviews Index

Now there's no need to go searching through countless magazines trying locate a specific product review. We've compiled all of the 'technical' hardware and software reviews from the last two and a bit years up to the March '98 issue of CU Amiga.

This month we've got productivity software and hardware. Next month we'll switch the index to cover games and CD-ROMs. We'll then alternate between the two in subsequent issues with updates from each month as they happen.

Bear in mind that for now, the scores listed are the original scores awarded to the products at the time of their reviews. These should be taken as a rough guide only, as they are all relative the rival products and prices that were available at those times, which may have changed since then.

If you would rather see us re-rate the products with hindsight and in context with newer rival products, let us know. Likewise, if you would like any other specific info or service from this index then please feel free to give us your opinions on the back of a postcard or sealed envelope.

The first ten to put their thoughts into words will get a Wizard Mouse free of charge. This 3-button mouse was accidentally left out of our recent Input Device round-up, which was ironic, as it would have been the highest scoring product of them all! Anyway, write to:

Wizard Mouse Compo,
CU Amiga,
37-39 Millharbour
Isle of Dogs
London
E14 9TZ

Title	Type	Comment	Review Date	Score
Productivity				
Wildfire 5 PPC	Animation tool	A great tool for processing animations but needs tidying up	Jan 98	79%
Distant Suns 5.01 CD	Astronomy program	Great to see this wonderful program on release again	Feb 98	92%
Burn It	CD-R package	Excellent CD writing package	Jul 97	85%
MakeCD 2.2	CD-R package	A very professional package with a sensible price	Jun 97	92%
Air Mail 4.22	Comms (Email)	Much better packages can be found on Aminet	Jul 97	68%
AWeb II 3.0	Comms (browser)	Good but flawed web browser	Aug 97	84%
FFNews 2.0	Comms (news reader)	The Amiga's best newsreader to date	Oct 97	90%
IBrowse 1.12	Comms (browser)	An excellent web browser	Aug 97	89%
Netconnect	Comms (various)	A high performance no fuss solution for Internet access	Jun 97	89%
NewYork 1.0	Comms (news reader)	A good quality though basic newsreader	Oct 97	79%
STFax 2.90	Comms (fax)	A few features need work but the package is being updated constantly	Sep 97	93%
Voyager NG 2.10	Comms (browser)	The essential Amiga web browser	Aug 97	92%
WebFTP	Comms (www)	A life saver for webmasters	Mar 98	83%
Pagestream 3.3	DTP package	By far the best DTP package available for the Amiga	Mar 98	91%
Apple II Emulator	Emulator (Apple II)	It should have pushed the envelope a bit more	Feb 98	80%
Atari 800 Emulator	Emulator (Atari 800)	Certainly better than we have had to date	Feb 98	80%
Fusion	Emulator (Mac)	Fast and powerful Mac emulation but flawed	Oct 97	78%
PC Task 4.1	Emulator (PC)	Slightly better than PCx	Jun 97	89%
PCx 1.1	Emulator (PC)	It's not quite there yet but PCx could be the way to go	Jun 97	86%
Aladdin 4D 5	Graphics (3D)	Considering the long wait this upgrade should have been better	Oct 97	76%
Art Effect 2	Graphics (paint/process)	A terrific performer made excellent by its new features	Sep 97	91%
Art Studio 2.5	Graphics (paint/process)	Good as a cataloguer but poor as a processor	Sep 97	61%
Personal Paint 7.0	Graphics (paint)	Excellent 'register based' graphics package	Jan 97	89%
Cinema 4D 3.0	Graphics (3D)	Easy enough for beginners and powerful enough for experts	Apr 97	92%
Cinema 4D 4.2 CD	Graphics (3D)	A great product that keeps getting better	Aug 97	92%
Drawstudio 1.1 CD	Graphics (DTP)	If you are into DTP this is a must have	Apr 97	92%
Image FX 2.6	Graphics (paint/process)	Excellent image processing software	Dec 97	93%
Imaginex	Graphics (Imagine plug)	A worthy addition to Imagine that makes it easier to use	Dec 97	85%
Lightwave 5	Graphics (3D)	If you are serious about 3D buy this	May 97	94%
Picture Manager Pro	Graphics (organiser)	Solid image management tool needing some polish	Jan 98	83%
Visual FX	Graphics (ImFX plug-in)	The ultimate plug-in for ImageFX	Oct 97	96%
Envoy 2.0	Network package	The Amiga's definitive networking software	Oct 97	92%
Turbo Print 5	Printer drivers	A superb way to produce stunning output	Jun 97	93%
Blitz Support Suite CD	Programming (dev tools)	No Blitz owner should be without this	Feb 97	89%
Geek Gadgets 1.0 CD	Programming (dev tools)	Excellent snapshot of the ADE but not suitable for all	Mar 97	75%
Hisoft C++	Programming (compiler)	In some ways it's better than StormC but in others it's not	Mar 98	89%
Secal 1.0	Programming (language)	Only very advanced users should apply	Apr 97	79%
Storm C 2.0	Programming (compiler)	For anyone other than those used to SAS/C it's the best	Oct 97	87%
Ultimate Blitz CD	Programming (language)	An excellent language and a good compilation of extras	Feb 98	85%
Siamese 2.0	RTG Network package	If you have a PC and Amiga then you need this	Jul 97	95%
Powerscan Professional	Scanner software	Getting a bit old but still competent	Dec 97	82%
ScanQuix 3	Scanner software	An essential purchase for all scanner owners	Dec 97	90%
Sound Probe	Sound (editor)	The best sampling and editing software by a mile	Jan 98	90%

TurboCalc 5	Spreadsheet	Dependable and thorough but v5 is a msinomer	Mar 98	86%
CygnusEd 4.2	Text editor	CygnusEd still slings text like nobody's business	Mar 98	89%
Digital Quill	Text editor	This young turk isn't quite king of the hill	Mar 98	87%
Executive 2.0	Utility (mulitasking)	Replacement multitasking scheduler	Jan 97	97%
Magellan Opus 5	Utility (file/OS)	The Amiga's most powerful Workbench replacement	Aug 97	92%
OxyPatcher	Utility (CPU patch)	Oxypatcher makes the fastest programs far faster	Oct 97	90%
Wordworth 6 Office	WP Office suite	Four in one package productivity package based on Wordworth 6	Feb 97	92%
Final Writer 97	Word processor	A superb all round document processor	Jul 97	93%

Title	Type	Comment	Review Date	Score
Hardware				
Apollo 1260/66	Accelerator (A1200)	If you must have the fastest then you must have this	Oct 97	88%
Apollo 630	Accelerator (A600)	A good piece of kit with real advantages	Jan 98	88%
Blizzard 1240T/ERC	Accelerator (A1200)	Very fast 40MHz 68040 accelerator	Jan 97	95%
Cyberstorm PPC	Accelerator (A400)	Too pricey but for the power user this is a must have	Jan 98	90%
SX32 Pro	Accelerator (CD32)	A great accelerator and expansion module in one	Feb 97	88%
Viper 520CD	Accelerator+ (A500)	Major expansion including CPU, IDE x2, 8Mb RAM, 3.0 ROM & Fat Agnus	Dec 97	90%
Viper 630	Accelerator (A600)	Good if you are desparate to keep your A600, otherwise get an A1200	Aug 97	88%
Viper Mk4	Accelerator (A1200)	It will seriously improve your machine's performance	Jul 97	94%
Viper MkV 1230/50	Accelerator (A1200)	Not up to the standard of a Blizzard but for the price it's great	Aug 97	88%
Squirrel CD-R	CD-R drive	Excellent and economical CD writing solution	Dec 97	91%
Power 2x CD-ROM	CD-ROM drive	If you like the price buy now because these will sell fast!	Mar 98	91%
Catweasel	Floppy controller	The Catweasel provides a good way of connecting any kind of floppy drive	Jun 97	88%
Micronik Genlock MG 10	Genlock	Good value compared to the Lola and a Rendale genlocks	Sep 97	90%
Micronik Genlock MG 25	Genlock	Cheaper than the competition for an SVHS genlock	Sep 97	94%
Pro Gen Plus Genlock	Genlock	A great genlock that will take some beating	May 97	90%
Digi Pen Graphics Tablet	Graphics tablet	Hardly top of the line but brilliant beer budget graphics tablet	Sep 97	92%
Eyetech Buffered IDE Splitter	IDE splitter	Provides assurance of reliability in tower setups	Jun 97	88%
Zyxel Omni.net	ISDN Adapter	Brilliant and very powerful ISDN terminal adpater	Oct 97	95%
Action Pad	Joypad	A short bit of cable with a weight on the end	Feb 98	67%
AtÉo PC Keyboard Interface	Keyboard interface	Allows use of PC keyboard in A1200 towers	Jan 97	85%
Sharp MD-MS200 MiniDisc	MiniDisc Player	The ultimate in portable audio	Dec 97	97%
Supra Express 56	Modem	A good solid performing modem	Oct 97	84%
Alfa Data Megamouse Plus	Mouse	Well worth a tenner of anyone's money	Feb 98	96%
Amiga Technologies Mouse	Mouse	If you like the Amiga logo you'll like this	Feb 98	86%
Logic speed mouse	Mouse	Below-par mouse with extra clicky buttons	Feb 98	76%
Megamouse E	Mouse	Cheaper than a Megamouse Plus but you get what you pay for	Feb 98	82%
SMD-100	MPEG decoder	Good for watching Video CDs but not much else	Mar 97	78%
Gemini	Network package	Very poor software support	Jun 97	67%
Network PC	Network package	Improved software means ease of use	Jun 97	88%
Insert 104	PC keyboard interface	Using a PC keyboard with a big box Amiga has never been easier	Jul 97	93%
Hydra A1200 Ethernet	PCMCIA Ethernet	At last! Good quality ethernet for A1200 owners	Oct 97	84%
Whippet	PCMCIA Serial port	Simple installtion and good performance create a great product	Aug 97	85%
Topolino	PC mouse adaptor	If you want to use a PC mouse without losing the serial port this is for you	Jul 97	69%
Pen mouse	Pen mouse	Good idea but flawed design	Feb 98	70%
Epson Stylus Colour 600	Printer	It would be hard to find a better buy	May 97	92%
Epson Stylus Photo	Printer	Does a good job of photos when used with Turbo Print	Oct 97	89%
Quickcam Interface	Quickcam interface	Not as useful as it could be but still fun	Mar 97	89%
Power 4Mb RAM board	RAM board	Great for the price but not the best there is	Jul 97	90%
Epson GT-5000	Scanner	An excellent scanner but overpriced for the Amiga market	Dec 97	90%
Hewlett Packard 5P	Scanner	An excellent scanner no matter which way you look at it	Dec 97	93%
Artec Viewstation	Scanner	A first-rate scanner but you do pay more for the extra power	Dec 97	89%
Port Plus Jnr	Serial port	Slightly overpriced but still a great product for net heads	Aug 97	88%
Prograb HiFi Sampler	Sound sampler (8 bit)	A brilliant sampler for all occasions	Apr 97	92%
MindEye	Sound to light device	An essential tool for an Amiga owning DJ/space cadet	May 97	86%
IDE Zip drive	Storage device	A good product let down by the fact you must reboot when changing disks	Jul 97	85%
LS120 120Mb Floppy drive	Storage device	Neat drive but way too slow	Dec 97	83%
Amiga A1200 MMS	Tower case	Maybe not the most professional tower but excellent all the same	Sep 97	90%
Infinitiv A1200	Tower case	A good product that ought to be brilliant	Sep 97	84%
MK II EZ Tower	Tower case	A very nice piece of kit particularly for the not so technical user	Oct 97	89%
Power Tower	Tower case	The most professional tower case yet	Feb 98	93%
ProTEL teletext decoder	Teletext decoder	Needs more work on the software	Apr 97	69%
Golden Image trackball	Trackball	Great trackball	Mar 97	82%
Primax Mater Trackball	Trackball	Near perfect design but a little overpriced	Feb 98	90%
Cybervsion 64/3D	Zorro card (graphics)	A promising card though flawed software brings it down	Mar 97	81%
Picasso IV	Zorro card (graphics)	Quite simply the God of graphics cards	Jun 97	94%
Port Plus	Zorro card (IO)	Good expansion potential only partially realised	Jul 97	72%

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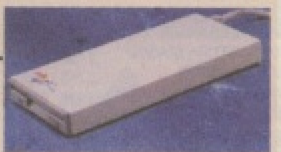
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AGA = 1200 only. WB2+ = Not A500. All titles are on ONE disk unless otherwise stated in brackets. This is only a small selection thats available from US - LOTS, LOTS, LOTS MORE AVAILABLE!

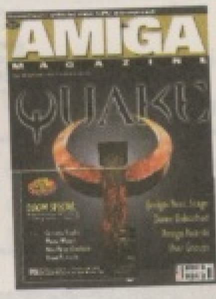
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CU AMIGA MAGAZINE

Q&A

Don't worry how complicated your technical problem is, challenge our panel of experts and they'll try to fathom it out. Please don't forget to provide us with as much detail on your systems and problems as possible, to help us solve things for you.

Logos

Mysteries and meanings ...

WORKBENCH — **Solutions to those everyday troubles with your Workbench.**

EXPANSION — **If you need help getting more from your Amiga, just ask!**

COMMS — **All your Internet and general comms problems swiftly solved.**

SOUND — **Trouble making your Amiga sing? We've got the answers here.**

HARDWARE — **Technical matters beyond the scope of plug-ins and plug-ons.**

SOFTWARE — **Answers to queries on particular pieces of software.**

HELP — **General queries which just don't seem to fit in anywhere else.**

CD-ROM — **Specific help with CD-ROM solutions and driver problems.**

GRAPHICS — **Problems with art and design? Help and advice is at hand.**

PERIPHERALS — **Printers, monitors, we'll solve your peripheral blues for you.**

Wrong magazine!

EXPANSION

Dear AF

(No, sorry, you've lost us there...)

At the moment I have A1200, 170Mb HD, Blizzard 1230/50, 8Mb & FPU and an SVGA monitor and waiting for Micronik to deliver Scandoublers to Blittersoft (no-one seems to have any in stock).

1. If I wished to further upgrade to say one of the PowerPC 603e cards from phase 5, would I have to ditch my existing card. If I have to discard the Blizzard board would I be able to buy a 603e card without the 68030 CPU and use the one out of the 1230/50 board.

2. When using the 603e cards, would running software coded for PPC freeze Workbench and other non PPC applications.

3. I am seriously thinking of putting my A1200 into a tower case, I understand that Zorro expansion slots can be used, would this then enable me to use graphics cards etc.

4. What can the Fast SCSI-II controller for the 1230/50 board actually be used for (apart from adding more memory), and what's so clever about it.

All info is much appreciated.

Darren Silcock, Doncaster.

1. No. The PowerUP cards are no longer going to be produced in the 68030 version. The fall in price of 68040 chips meant the 68030 version was going to cost about a fiver less, which made it a financial nonsense.

However as the second hand value of your card is greater than the value of the CPU, this is no loss to you – you would have been better off buying the card with both CPUs and flogging your card second hand. It is worth calling your phase 5 dealer of choice and asking about upgrade deals though.

Details are unclear at the moment but you may be able to claim a discount or trade in.

2. No. PowerPC software will happily run alongside Workbench/68k apps, although there are some complex issues about how it switches between them. phase 5 and Haage & Partner offer developers alternative program 'kernals' which provide a core program for communications between the two; they work in fundamentally different ways, but this is largely academic to the end user.

3. Zorro boards for the A1200 give full Zorro functionality. This means graphics cards and anything else. However be warned that you can only use Zorro2 with A1200s unless you are using the Micronik z3i board and an A4000 style accelerator card. With Zorro 2 you won't get the full performance benefits of graphics cards, and until we have been sent one to test, we can't recommend the z3i boards.

If it is only a graphics card you are after, consider the BlizzardVisionPPC card designed to fit on that BlizzardPPC card you are interested in. It has the rather major disadvantage of not yet existing, but the chipset it is being designed around is far superior to that in any current graphics card.

4. It is a high quality implementation of a SCSI interface. This allows up to seven devices to be connected to it and communicate with your computer at high speed. SCSI devices available include CD-ROMs and CD-Writers, hard drives, scanners, tape drives, Zip and Jaz drives, and so on.

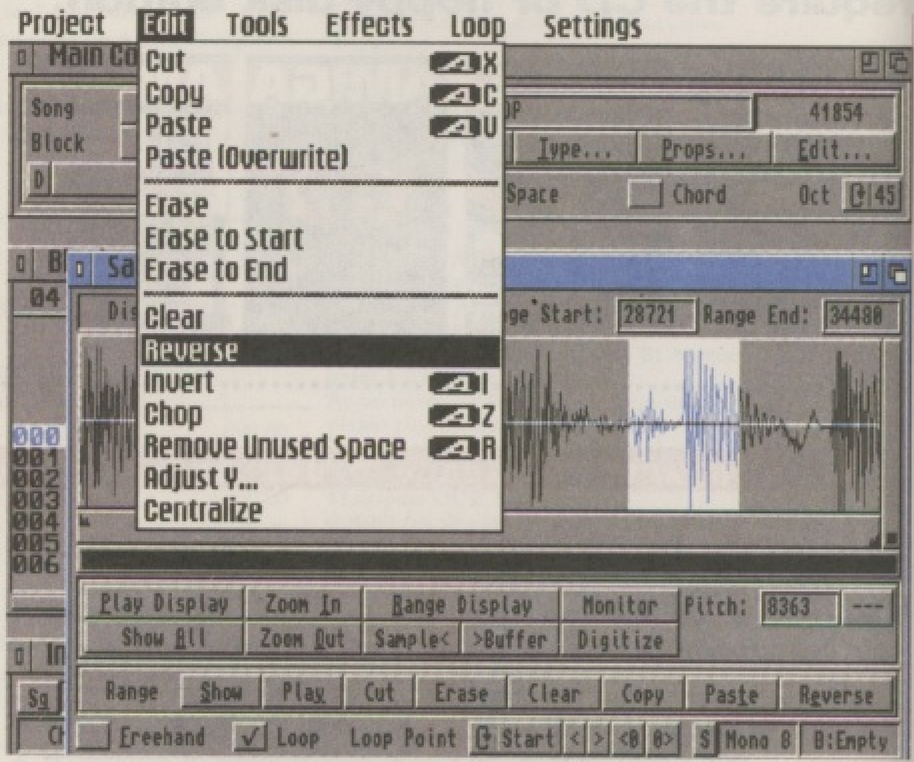
Chips aren't fast

HARDWARE

I have recently acquired an A500 fitted with a 512K upgrade. I decided to further upgrade with a 520CD board and a hard drive. From Workbench I am given 512Kb Chip Memory and 8 Mb of fast memory.

This I am finding rather confusing, and it seems to be a bit of a problem, as some packages seen to require more chip RAM, Can you give me some help?

D.P. Mainprize, N.Yorks.



▲ **OctaMED Sound Studio allows you to play samples from Fast RAM as well as Chip RAM.**

Most software written in the past few years assumes you have an A1200. If it requires AGA then there is no way it will ever work on your A500, but thankfully for owners of older machines, many pieces of software will run on the more primitive graphics hardware in this.

However, there is no way around the problem that many programs require sizeable chunks of Chip RAM without actually giving them the RAM they need. When a program opens a screen, amongst other things, it eats up chip RAM.

You may in some cases be able to force it to open a smaller screen, but to get anywhere much you will need more chip RAM, and this means getting back on the blower to Power and asking for a megachip chip RAM upgrade, another hundred quid.

On the whole it is not worth upgrading an A500, it tends to cost as much as buying a comparable A1200 system would, if not more.

Tech Tip: It's good to talk

TECH TIPS

Every now and then you need to make an Amiga talk to other computers. You may have a bunch of pictures on a PC or a Mac which you want to import to your Amiga to process in ImageFX, you might have a Lightwave model you want to take over from your Amiga to render on an Alpha NT station. You might be reading our cover CDs on a PC until you get yourself a CD-ROM drive for your Amiga. How do you do it?

The most direct route is to link the two computers together. This means networking, and networking software. For the serious user, the Siamese system allows an Amiga and a PC to connect to each other via a TCP/IP stack, which means that they can communicate over a LAN (local area network) via ethernet cards or eventually over the internet.

This is the most advanced way of doing this sort of thing and allows a windows screen and a Workbench screen to appear next to each other on your monitor and allows the Amiga to access your PC drives or visa versa. For those with slightly less rigorous designs, a parallel cable linking the two together allows reasonably fast downloads, certainly in comparison to Internet usage if not quite up to the speed of ethernet. Software to facilitate this kind of link up between an Amiga and a Windows 95 PC is fairly common – Weird Science produce the excellent Network PC to do the job, making file transfers a real doddle. Call them on +44 (0)116 246 3800.



A rather more elegant solution is available through storage devices. An obvious route is through floppy disks and the wonders of CrossDos. Standard with Workbench 3.0, this allows you to read and write to PC formatted disks. Make sure the pc0 file is in your devs:dosdrivers directory (if it isn't you'll probably find it in storage/dosdrivers) and PC disks can be addressed by calling pc0: instead of df0: in all the usual manner.

Of course there is an obvious problem with this, the 720k format of a DS/DD floppy disk in PC format is too small for many purposes. PCs as standard use DS/HD floppy disks which store 1.44Mb, you'll find that having one in your Amiga will make life a lot easier. Blittersoft will sell you one, ring them on +44 (0)1908 261466. For larger files, a ZIP drive can be persuaded to use CrossDos as well – find a suitable mountfile in the magazine drawer of this months CD. Remember to change the device field to match the driver you use. A final problem awaits. CrossDos only supports 8.3 format. This is the old pre Windows95 PC file format which allowed files to be no longer than 8 characters long followed by a suffix of 3 character, for example maximum8.lng or file.txt. If the file you want to copy is longer than this, it will be appended, and for programmes this can cause major problems.

A simple solution is to zip all the programmes under windows using WinZIP and then unzip them using one of the Amiga zip programs once you have the archive at the other end. All the long file names are preserved within the archive.

600 printers.

PERIPHERALS

I have recently purchased a second hand Amiga 600 with Workbench 2. I also have a black and white Star LC-10 printer.

I would like to get a colour inkjet or bubblejet printer (not too expensive) and would like to know if such a printer would be compatible with the A600 and also if my A600 is powerful enough to operate such a printer.

Would we be restricted to a certain make of printer? Do you have any recommendations as to which one would be the best to buy? Our main use would be printing from paintbox software and a map program that we have, plus the odd use of colour typefaces.

Please don't be too technical, we are only computer beginners!

Sue Daniels, Stourport on Severn

Your A600 will work with pretty much any inkjet/deskjet printer. It is entirely up to the task, with two provisos – first is that you may find larger or more colourful images require more memory to print than you have, and second that it will print pretty slowly – no problem if you are reasonably patient.

You will need a piece of software called a printer driver to tell the computer how to talk to your printer. Unfortunately no printer manufacturer ships Amiga software in the box, although Canon will send you a disk if you phone them up and ask. Alternatively check out the review of TurboPrint 6 this month, a package which does the job for you and supplies a lot of extras too.

As a cheaper alternative, many inkjet printers have driver software for them written by Amiga users, which you should be able to get from a PD library. It is worth calling a few advertisers in this mag and see what they can offer you with a printer, many will supply you some sort of driver software, some such as Power Computing (01234 851500) sell printers with a cut down version of TurboPrint. As for recommendations, the Epson Stylus series are excellent, and come in a range to suit all pockets.

Amiga MIDI master

SOUND

I wish to use my Amiga as the master controller for other MIDI devices (using Octamed) at live gigs. I own a bog standard A1200 and expand it to a point where at least 6 Megs of modules can be stored and quickly accessed on stage.

I know I need more memory and a hard drive, but that's as far as I go, so can you help me out with the following questions?

1. What kind of memory do I require for playing back samples in OctaMED – Chip or Fast?

2.Do I need the memory to be fitted onto an accelerator card to fit in the trapdoor? Would this conflict with the hard drive and are there any other options?

3. How would the Amiga be fitted with more memory than the trapdoor allows, without locating the motherboard in a tower? I was thinking of 32Mb SIMMs.

4. Are there any programs or devices available to convert OctaMED modules into PC/ST professional dataplayers (Cubase)?

5. What is the best 16 bit sampler available for the A1200 and can an A1200 be fitted with sampler cards like high end Amigas?

Craig Dinwoody, Liverpool.

1. Normally Chip, but OctaMED Sound Studio allows you to play samples from Fast.

2. You can buy memory only



▲ Font problems with Scala? See Missing Fonts below.

cards, but the cost of cheap accelerators is now low enough to make memory only cards a false economy. There is no clash with hard drives.

3. I think you have heard that the trapdoor allows only 8 Mb, right? Wrong. This limit only applies to those memory only cards, if you put an accelerator in the trapdoor, 32 Mb is no problem.

4. You can save Sound Studio projects as Standard MIDI Files which will load into Cubase or any MIDI file player. Select SMF Type 0 from the Save options.

5. Basically you're onto a loser for 16 bit audio with a straight A1200. Aura is only 12 bit and has patchy software support. Clarity is even less attractive. The main problem is insufficient bandwidth on the A1200 expansion slots (although the trapdoor could easily handle it but there are no trapdoor samplers).

If you want good, practical, versatile 16 bit output you should get a Zorro breakout board for your A1200 (put it in a tower).

Short but sweet

HELP

I have some questions:

1. Is there a problem with AmigaDOS 3.1, and IDE CD drive and 8Mb of RAM – and if so, is there a fix?

2. Is there a problem with either 170Mb hard drives or IBM hard drives? I've had three from two suppliers, none of which would run longer than an hour before crashing and needing repartitioning.

3. Is the next Amiga going to have a 680x0 and a RISC chip and if so, which will it be?

Illegible signature from someone in Dorchester

1. No. There is a problem with more than 4 Mb on a memory card with an unaccelerated 68020 system which applies to the PCMCIA 'card' slot, which would apply to some CD-ROM drives which use a PMCIA interface.

2. This sounds to me like a problem of power. The power supply bricks which ship with A1200s are not very powerful and demanding hard drives can cause problems.

3. Given this letter arrived a couple of months before the big decision was made, you leave me wondering if you are in fact Mystic Meg in disguise. Yes, next generation Amigas will be based on a 68K and a RISC processor, the RISC chip in question being PowerPC

Power from towers.

HARDWARE

I've got an A1200 with a mini tower containing my hard drive and CD-ROM drive. My problem is that I want to power the whole system, including the A1200 from the mini tower. A friend on mine has a PC in a mini tower similar to mine.

I noticed that he has a lead connecting his tower and monitor, providing power to the monitor. I looked at my own tower and found a matching socket. Would it be possible to get a lead that would go from this socket to my A1200, providing power to the Amiga? If not is there any other way of powering my Amiga from the tower?

Another Problem I have is that the little light on my Amiga indicating hard disk always turns off if I switch on the mini tower. Everything seems to be working fine, so will it be alright?

Name & address not supplied

The through power connector on the back of your tower is doubled up this side of the power supply – in other words you get 240 volts through it. The simplest solution would be to buy a socket extender – ICS (+44 (0)1474 335294) sell them. This plugs into the IEC (kettle type Euro socket) and gives you a couple of standard UK style 3 pin sockets. Plug in your Amiga PSU and monitor into this and hey presto, everything is powered by the mini tower case. Inelegant, but it works.

If you want to bypass the A1200 PSU (very sensible) then it is a little more complex. The IEC socket on the back supplies 240v, so you can't use that. Instead you will have to connect up via the internal power connectors. ICS can also sell you a cable which connects to the 10 way motherboard power headers and plugs into the back of an Amiga.

My head hurts!

MAD COW

I am having problems with my Amiga, perhaps you can help me with it. I have been using the software from your coverdisk number 66, but it keeps coming up with errors. Is this a fault with the software? It is beginning to get annoying. I'd like an answer quick, so could you please write back straight off? If you think my disk is damaged then please send another disk. I enclose a stamped, self-addressed envelope.

Also, I have recently got a CD drive and have bought a few issues of your CD edition. Although it is very good, it is too hard to find things on the disk. You ought to have some kind of index, preferably with indexes of old CDs too.

I do have a complaint about CU. You seem to miss out reviewing some of the most important products! Why haven't you reviewed the Power PC card for the A1200 yet? I think you must be getting lazy! Also the new computers from Micronik and the Ateo graphic card for the A1200. These are important products, so get reviewing CU Amiga!

N. Duane, Macclesfield.

Well done, normally letters like this land up in the bin, but yours was so spectacularly wrong we just had to print it as a guide to others for how not to write a letter to Q&A. So, in order:

1. Coverdisk 66, huh? Why don't you try telling us what it is? It also might have helped if you had asked about 5 years ago when someone here might even have remembered what the program was and how to use it.

2. No, we don't replace disks. If your disk is faulty you can get it replaced by DiskXpress, check the blue panel on the contents page for details. Older disks might be replaceable through back issues, but we can't do it.

3. We have said no SAEs time and time again. We don't answer queries personally because if we did the mag would not get written.

4. We do have indexes as you describe. Try reading the instructions before complaining.

5. Do you think we had a choice and decided not to review the good stuff, huh? If we haven't reviewed something, maybe it is because we haven't been sent it?

There are basically four reasons why something hasn't been reviewed in CU. It's either not finished despite the adverts, it is finished but the UK distributors don't have any, it is finished and we received it but it isn't exciting enough to force it's way into the mag yet, or it's on sale but so bad or so bug ridden that no-one wants us to review it and give it a panning. If there is something you want reviewed and we haven't reviewed it, ring up the supplier and have a go at them about it.

Missing fonts

SOFTWARE

I am having some problems with your Scala coverdisk. I installed all that was on Coverdisk 174 onto my hard disk using the installer, and then I copied all the contents of the "SCALAFONTS" drawer on Coverdisk 175 to m y SYS:FONTS drawer.

After copying the backgrounds to the "ScalaMM300" drawer I attempted to run the program and got the message "Cannot find font: Scala.font 11". I double-checked that I had copied the fonts correctly and I had. Please help as I am itching to use it.

How to write to Q&A

You can send your queries (or a good tech tip if you have one) to Q&A, CU Amiga Magazine, 37-39 Millharbour, Isle of Dogs, London E14 9TZ or preferably e-mail: q+a@cu-amiga.co.uk. We can accept letters or text files on floppy disk. Please do not send an SAE.

WE CANNOT RESPOND DIRECTLY TO QUERIES BY POST OR OVER THE PHONE OR E-MAIL, and cannot answer every Q&A we are sent. Sorry. We do appreciate that you may have a serious problem and until Amiga International re-open a UK office you may have no-where else to turn, but we get so many questions we simply don't have the time or resources to answer them all. We do our best to use letters in Q&A that answer most common problems, so even if your own question is not answered you may find an appropriate solution here.

Andrew Quinn, Manchester.

We have had innumerable letters and phone calls concerning this problem with the Scala coverdisk. The solution is simple: after installing Scala's fonts to your FONTS: directory, run the FixFonts program (it can be found in your Workbench/System drawer.

No substitute

Could you help me please! I'm having trouble with my Internet connection. I am using net+web1with a 56K modem. The problem is that the net+web software does not dial up unless some other application has reset the modem first.

This means that I have to run the supplied TermiteTCP demo, connect, disconnect, and then use net+web! I don't want to carry on doing this, because there comes a time when the Termite demo can no longer be run, and has to be de/re-installed.

Also, the demo version of Miami (2.0g) will not configure the PPP or c/slip connection properly. It claims either that the line is faulty or the PPP / c/slip at the ISP is incorrectly configured.

I have checked all of the settings in Miami, including DNS servers, protocols, MTU size, 'XonXoff/RtsCts, etc, so I don't see the problem. This is seriously bugging me, because I'd like to use the SSL support with my copy of iBrowse(1.2) to make various 'net credit card purchases.

Adrian Cope e-mail

All your problems stem from the fact you are using old and demonstration versions of software. You can't expect these to be as functional as the full versions. Buy a copy of Miami 3.0 – which is the only Amiga- compatible TCP stack at the moment with SSL support.

A to Z

Holy Ham mode, it's time for H – a letter typically dropped by our illustrious editor.

H is for...

Hackers

When someone was described as a Hacker, it used to mean they were serious, nerdy programmer types. Then it meant people who "hacked" games to remove copy protection, spread illegal software (often with free viruses) and generally destroyed the Amiga software market. Now it seems to mean serious, nerdy programmer types again: especially UNX fans.

HAM

A special graphics mode, unique to the Amiga, called Hold And Modify. Instead of using memory bits to store pixel colours, the bits are used to stored the difference between successive pixels ^ this means that although there is a little stepping between regions of different colour, images with up to 4096 colours are possible. Amiga-lore has it that HAM was put into the Amiga's chipset only as an afterthought by the designers. No-one quite realised the effect it would have: the Amiga was one of the first computers, and definitely the first home computer, which could display graphics with such detail. Digitised pictures looked amazing.

HAM8

An upgraded version of HAM introduced with the AGA chipset. HAM8 can display pictures with so many colours that it looks almost indistinguishable from 24 bit images from graphics cards: just a bit slower, that's all.

Handshaking

The way in which two devices communicate. The handshaking protocol decides who is sending information and when, using extra control lines (as with RTS/CTS systems) or special characters (as with XON/XOFF systems).

Hard drive

The most essential peripheral for an Amiga. A hard drive is like a floppy disk, but stores more and accesses it more quickly. Keeping the Amiga's operating system on hard drive instead of floppy speeds up the Amiga and makes so much more possible. We used to think 20Mb hard drives were cool: now 2Gb drives cost the same or less.

Help button

A almost totally unused button on the Amiga's keyboard. No doubt there were grand plans for it, but it still doesn't do a single thing unless you program it yourself. OK, so some software may use it to start AmigaGuide help files, but not enough to make it a standard action. Bit of a waste really.

Hex

Short for hexadecimal, or "Base 16". Humans are used to counting using Base10, so after nine we go directly to ten. However, if we use Base 16 instead it often makes dealing with the kind of numbers which crop up in computing a lot simpler. The numbers are exactly the same, but patterns emerge which make some sums easier. Base 16 numbers don't count from 9 to 10: they go from 9 to A, then B and so on up to F. So after 1F comes 20.

Hidden flag

Amiga files all have special status bits called flags associated with them, and for example these allow them to be protected from deletion.

One of these flags is the Hidden Flag, and when this flag is set, the file won't appear in a directory listing. Obviously it was one of those things which seemed like it was a good idea at the time.

High resolution

An Amiga graphics mode. The default Amiga Workbench makes use of high resolution mode. This mode has 640 pixels across the screen. It's perfect for reading text and dealing with icons. The first Amiga's could only use high resolution mode with a very limited number of colours (16) which kept it for special occasions.

HiSoft

A major Amiga player. HiSoft have done it all: Basic compilers, sound samplers, CD-R drives. They invented the Squirrel SCSI device which made the Amiga A1200's PCMCIA port into something useful.

They created Devpac, which made a lot of games possible. The head honcho is a nice man called David, and I hope he forgives the spilt beer incident at the Viscorp press launch in London a few years ago.

Host

An ARexx script needs to know which program or programs it can talk to in order execute a particular function. For example, if you want to use Personal Paint's filters from your ARexx script, you must set Personal Paint up as the host from within the ARexx script.

Hot spot

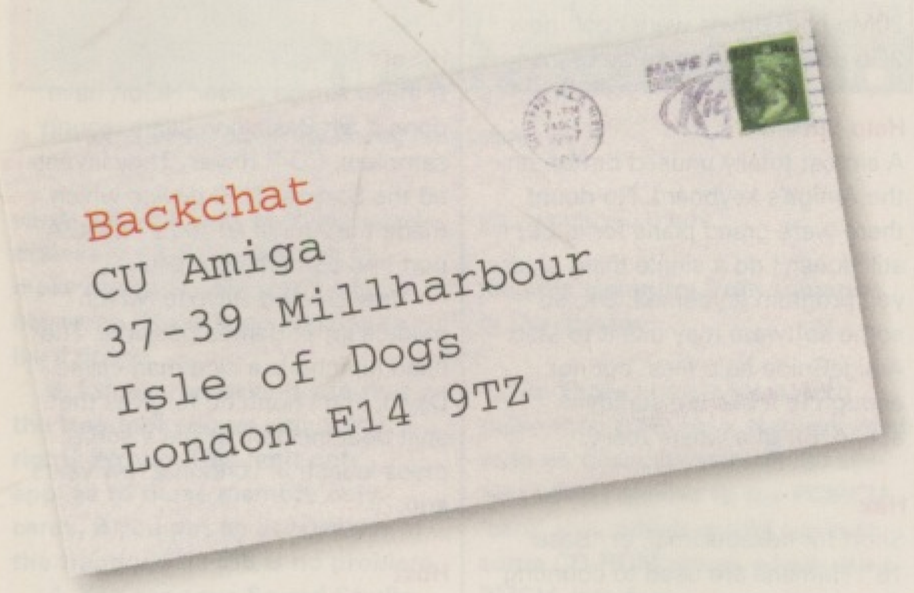
One pixel in the Amiga's on-screen mouse pointer is the "hot spot". It's this part of the pointer which is considered to be the exact area where the pointer is acting.

Hyperbook

One of the easiest to use and yet most powerful pieces of multimedia authoring software. Why, oh why didn't this set the world alight? There was nothing like it on any other platform for years. It was ahead of it's time.

Backchat

What's the use of an opinion if it's not aired? None at all, that's what! Get yours in print via the address below, or email them to backchat@cu-amiga.co.uk



Mad Macs II

Thanks for the ShapeShifter/Mac emulation theme of your April issue. I like the idea of getting what is almost a free computer with the mag. So far I haven't got around to transforming my Amiga into Mac though – I don't yet have a Mac to grab the ROM image from – but reading further into your main feature I'm not sure I really want to now!

I'm not experienced with Macs, but surely you're pulling our legs with your tales of 'Mad Macs'? How can a modern computer expect to be taken seriously with such inane error reports ("An unexpected error occured, because an error occured"). That makes Windows sound half usable.

Dean Gumley, via email

CU's lame excuses

After reading Tony Horgan's 'Points of View' in the April 1998 issue of CU Amiga I find the need to write in and clear some points up. He says that the amount of people buying CU Amiga has dropped, showing that the Amiga market has shrunk. This is totally untrue, there are thousands if not millions of Amiga users all over the world and only a small percentage of these actually buy an Amiga magazine.

Why would someone buy a magazine if they had the Internet and could find the news out much quicker by going to a web site or chatting to the author of something on IRC? Let's face it, by the time the magazines hit the shops the news is nearly 2-3 weeks old and many Amiga users already know about it.

There is also the fact that Emap have the cheek to charge £6 for the CD edition. This is far too expensive for a magazine that comprises 107 pages. I counted that around 27 sides of your magazine were taken up by adverts which leaves 80 pages actually written text by you. This also includes many half page and smaller adverts, countless numbers of indexes and CD/disks indexes, and two Art Gallery pages with around 100 words if that on the pages.

Then we get the Doom level round up pages. You have the cheek to waste two pages on this?!?! Was there any point in that article? If I wanted to see what the levels where like I'd check them out for myself, after all that's what the levels were made for... to play... not for a magazine to tell me what they're like.

Overall a month's work for the CU editors must only come to about 20 pages with the other pages filled up with contributions from various people. I do not think the asking price each month is worth what we actually get and unless the amount of pages increases, quality of work improves or price drops, I'm afraid to say your figures next time will be minus my sale. You may print this letter, you probably will not, but whatever you do please take note of it.

Anon, via Digital Candy BBS email

Well Mr Anonymous, you didn't like that issue much did you? We would never be so foolish as to assume every Amiga user buys an Amiga mag each month. If our strategies were rooted in that kind of fantasy we simply wouldn't be around today.

The Internet is nearly always going to break news before a monthly printed magazine, although you'll notice our Pre\Box story in the April issue News section reached our subscribers before it was known about on the Net.

So if the Internet is a faster, superior, better value replacement for printed magazines, think on this. How long would it take you to download the contents of our cover CDs, and when was the last time you saw something like Scala MM300 freely available on the Net?

Then there's quality journalism: informed features, in-depth reviews, creative tutorials... You want more words on the Art Gallery pages? It wouldn't be much of a gallery if the pages were covered in text would it? And as for adverts, please. Ask someone to explain to you the basics of business.

Oh, and when was the last time you accessed the Net on a train journey? <steps down from defensive high horse>

Finally, and more to the point, if you want to pretend the Amiga scene is not shrinking, go ahead and fool yourself all you like. Us? We'd rather face the truth. That way we can do something about it. But then these are all wasted words aren't they, as you're not reading CU Amiga anymore.

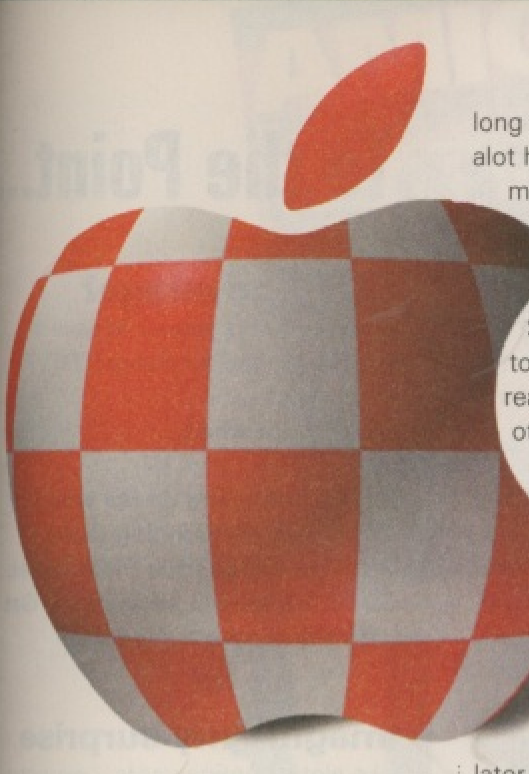
> "Why would anyone buy a magazine if they had the Internet and could find the news out much quicker by going to a web site or chatting on IRC?"

COBOL Rulez!

Firstly, well done for the best Amiga magazine, but as usual there are some points that really should be out straight. In your 'Millennium Bug' article from CU April 1998 you refer to COBOL based-programs on mainframe computers. However, this entire part of the article was in the past tense.

Quote: "The applications written on these computers *were* often written in a language called COBOL".

Quote: "COBOL is quite a dinosaur now, but *was* considered very capable for developing applications until very recently". And there were more.



Can I point out here and now, that working for a major company that still uses mainframe computing power for its work that COBOL is still in use and new programs are being developed with COBOL by our in house programming team as we speak! This is the same for all MVS based mainframe systems, and so will apply to places like Midland Bank, Natwest Bank, Dunlop Tyres Ltd, Motorway Tyres etc. Okay, so 'ObjectStar/Huron 3.1' has now been released, but COBOL is still the main programming language used on these systems.

So could you please make sure next time that in articles you use the correct tense in future. As COBOL is alive and kicking and will be for a long time into the future. It is alot harder to upgrade a mainframe system, it's not just a matter of uploading a new library!

Secondly in your Take it to the Macs! article you say a reason for running a Mac is for other emulators. I can agree with this but your statement "the Mac has better Sega Game Gear emulators" is hardly true.

AmiMasterGear is as near to 100% fully Game Gear, Master System compatible as an emulator can be and it is still under development. As long as you are willing to pay the registion fee.

Mac emulation is good, but surely supporting Amiga software should come first, and if an equivalent Amiga program exists that is as good as on any other system you should be encouraging people to use that. For example, YAM v2 is by far the best email program in existance, though I don't see you saying that we should install PC Task and Win95 just to run Outlook 97.

Alex, via email

"I don't believe that any games being written now for the Amiga are in the same league as games such as Worms, Theme Park, SWOS or Lemmings"

Ask yourself this...

A question to put at you so called true Amigans:

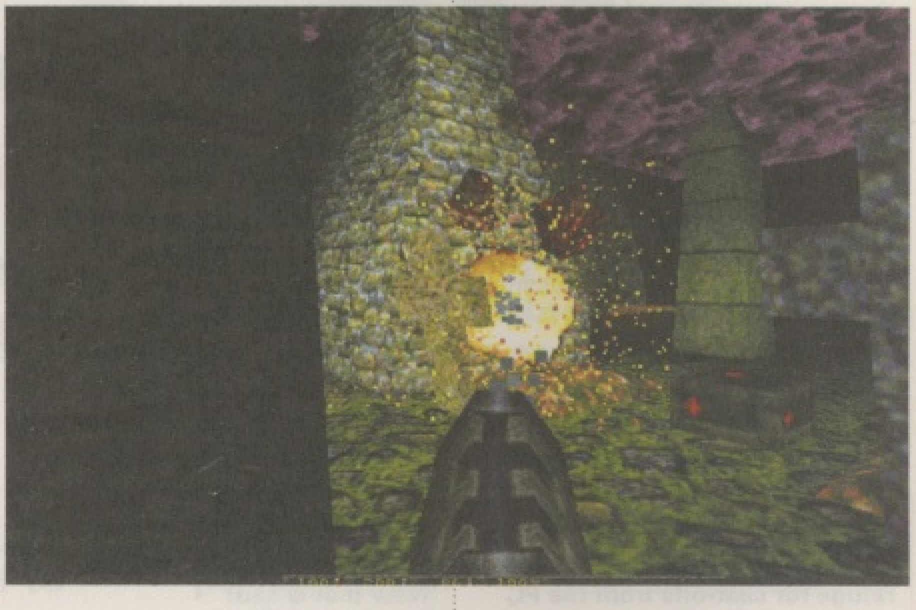
If you won the Lottery, would you buy a PC? Think hard about it! If your answer is yes, then:

1. You would be aiding the PC market

2. Deep down you want a PC.

I know CU Amiga isn't biased against the PC, but there are many users out there who totally are.

And its great to have some people biased towards the Amiga for a change.



I have noticed that things are really looking up for the Amiga now! Good Luck to you all! I am with you 100% of the way.

Andrew Fitzgerald, Rotheram

My, what a cunning test of Amiga loyalty you've devised Mr Fitzgerald! You should be on TV with talent like that.

Just do it!

I have got to say you are an excellent magazine, and you're providing me with the Amiga info that I would otherwise never get. It is quite hard for me to stay with the Amiga as I am only 14 years old and I live in Australia. I play games all the time against all these PC users and almost always beat them although it is getting difficult to do this because 95% of PC games are not out on the Amiga.

I have just heard that Ultima Online is coming out for PC!! If we managed to get ClickBOOM! to convert this now I think the Amiga would suffer the revival of the century. I understand that Quake and Myst have come out but these are all old on the PC!

You may think that because I am only 14 I dont know what I am talking about but I have asked many diehard PC users and even companies whether they'd go back to the Amiga if things like Ultima Online were on it. *Please do something!* Could you please print this letter 'cause I am from Australia and it would be really nice for you to acknowledge our efforts Down Under!

Andrew Werchowiecki, via email

Seeing as you're from Down Under we've printed your letter. Next month (or the one after), for no apparent reason, we'll print the first letter we get with a Timbuktu postmark on it.

Bring out your scraps

I feel compelled to write to you after reading your answer to Chris Jones from Sheffield's letter concerning PC game writers converting to writing for the Amiga.

At the end of your answer you said that "The Amiga user base isn't a dumping ground desperate for any scraps thrown its way". Isn't it? When was the last really decent game written for the Amiga? Sure there are still games being written for the Amiga but are they actually any good?

Am I the only person who does not like the various Doom clones doing the rounds? Where is the standard of games that used to make the Amiga second to none on

Letter of the month

I think I've almost had it with you lot. I don't know whether to congratulate you or recommend you for mental treatment. Why? Because of your eternal, ever-lasting optimism in the face of all the Amiga's troubles!

Granted, you like to have a bit of a moan in the Points of View section but how can you keep that spirit up when most of us are sobbing onto our mouse mats? Then it makes me think, maybe it's all just a show – a confidence trick to keep us all thinking it's going to turn out for the best so we don't defect to the PC.

Perhaps Tony Horgan's permagrin on the Contents page is the result of a strategically placed electric cattle prod, or maybe it's just been warped in Image FX. Could it be that you are all just blind to the facts, or plain stupid?

Common sense and sceptisism on my part has stopped me short of concluding some kind of alien mind-bending conspiracy theory, but only just.

I suppose at the end of the day I'm glad you can keep your pecker up. There are enough sullen shoegazers around at the moment as it is. Keep it up!

Jon Butterworth, via email

We're just like what we're doing. As you say, there's no point just complaining and getting too depressed about things when there actually are good, real things going on, even if they're not coming from Amiga Int/Inc at the moment. It the enthusiasm of the user base that has kept the Amiga going through these recent years, so lets not knock it!

the gaming scene? I don't believe that any games being written now for the Amiga are in the same league as games such as Worms, Theme Park, SWOS or Lemmings. Indeed, software firms like Sensible and Team 17 do not write for the Amiga anymore. Hardly encouraging is it?

As for scraps thrown the Amiga's way from PC programmers I personally would welcome anything at all. I'm sure a large proportion of Amiga owners would run down to the shops, cash in hand, if games like Theme Hospital, Nuclear Strike, Worms 2, Monkey Island 3 or Sensible Soccer 2000 were converted from the PC to the Amiga. I know there is little chance of this actually happening but you saying it is not welcome is odd to say the least.

As an owner of an Amiga for many years, starting with a 600 and then upgrading to a 1200 about two years ago, I will support it forever, but let's not pretend the Amiga, and gaming in particular, is in anything other than decline.

Stuart Le Grice, Essex

There's a big difference between getting Amiga conversions of games like Monkey Island 3 and Theme Hospital, and becoming a refuge for cast-offs from the PC game development world. The original suggestion in Chris Jones' letter was that developers who couldn't handle the pace in the PC market could get away with knocking out late or lesser standard products to Amiga users.

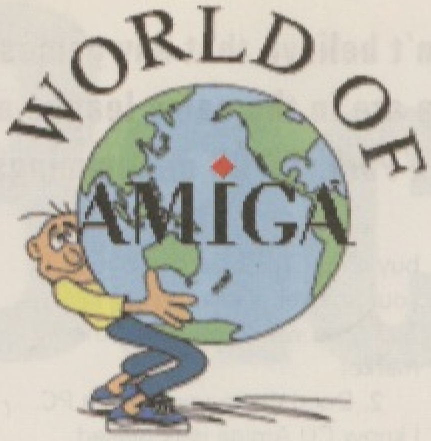
Hull and Back

I was pleased to see the Amiga getting the show it deserves this year in the UK. Even though it's down in London (again) which will mean a lengthy round trip from Hull for me and my local Amiga mates, we'll be making the trip all the same. I think the idea of screening the FA Cup Final is a good one too, as it gives people no excuse for not turning up. Shame about the short notice though.

Dominic James, Hull

Get the violins out

I know this might not be the right place to mail this. But hey! Why not? I am sad! I have lost a good friend and Amigapal. I wish not to state how, but it's not in a tragic accident or anything. He is still alive. I loved his friend quite a lot and this



killed our friendship. I was not understanding or maybe not respectful of his feelings.

But now I am drowning my sorrow with my Amiga, and in a month or so I will release a music cassette made entirely on an Amiga, and I will dedicate it to my lost love, Ove...

Espen Solheim, via email

So we're supposed to be some kind of agony aunt/personal problem solving service now are we? Don't worry though, your Amiga will always be your best friend. Now that *is* sad!

Look at my 060!

I'm just writing to say that people don't know what they're missing. I'm talking about those Amigans still using 68020 Amigas or even I guess, 68030 Amigas. I can't criticise them, because that was me until a few weeks ago. I came across a bargain 060 card for my A1200 and thought I'd treat myself (it had 16Mb RAM on it too!). All the talk of upgrading I'd heard hadn't prepared me for the difference it made to my system!

This 060 card is soley responsible for completely changing my views on 3D rendering. I used to think it was so complex and slow that I never even used your Imagine 4.0 cover disk more than once. Then I thought I'd try it with my 060, and boy, does it fly! I'm now totally converted to the 3D art. Before, it would have taken maybe an hour for a very simple scene to render, only for me to find out that the viewpoint was wrong or something. Now, complete scenes are rendered in hi-res before my very eyes, and 'Quick Render' previews are as good as instant. The point of the letter isn't to brag, as I'm sure there are lots of other 060 users out there. It's merely to avoid anyone else spending so long getting by on a lowly Amiga, thinking "this is as good as it gets", when they are missing out on so much.

It's only when you think about it that you realise what else you can do that you've got used to being out of the question. Now I can play more channels with Sound Studio. Multitasking a number of big, CPU intensive programs at once is now a workable reality.

In short, my Amiga has been given a whole new lease of life and I feel like I've got a whole new computer to play with!

Evan Garner, Worcester

What's the point?

I don't mean to bring anyone down, but probably will anyway. My question to you is, in the light of Gates and his global domination (he'll probably own the Internet soon too) is there really any point in trying to hold back the tide? Aren't we all destined to become slaves to the Wintel systems that have already sucked in the rest of the world? Amiga Inc/Int attempting to take on Microsoft make David and Goliath look like quite an even match.

I mean, how on earth could anyone expect to overturn a monopoly like that? When it's reached the stage that most people think there are no other personal computer systems in existence, and don't even see a reason for there being any other systems, I think it's past the point of no return. I pains me to say it, but I think all of this excitement about an Amiga rebirth is going to fall flat on its face very soon.

Michael Gunter, via email

There's nothing like a good positive note to finish off the letters page, and that was nothing like one. We disagree with you Gunter. People have short memories and assume that like Hula Hoops, Microsoft has been around and will stay around for ever. With technology moving so fast, today's Wintel domination could be tommorrow's Techno Tragedy. It could happen!

"Is there any point in trying to hold back the tide? Aren't we all destined to become slaves to the Wintel systems that have sucked in the rest of the world?."

To the Point...

CDTV coverage?

Do you have or intend to have a special section for Amiga CDTV?

Jaydee, via email

No we don't, and no we won't! At the risk of offending those with the not so little black boxes, CDTV is obsolete technology. Get with the program Jaydee!

Imagine my surprise

Like alot of Amiga users, I expected Quake on the Amiga to be a slightly sorry looking affair. After all you need a fast PC (166 +) to get anything like a decent frame rate. If you want 16 bit modes, then GLQuake is required along with a nice 3D/FX or PowerVR 3D accelerator.

Imagine my surprise when I downloaded the Quake demo. From ClickBOOM's web site (all 6Mb of it). It looked awesome!

Mick Smithson, via email

You'll find that demo on this month's CD.

Golden greats

I really liked your gold trimmed Quake cover. Any chance of the gold replacing the red permanently as I think it looks much cooler!

Richard Gough, via email

You never know, we could take it up as a regular thing, but we like to suprise you! Hopefully this month's alternative colour scheme will meet your approval.

Set them free

I've got an idea. Why don't you have a vote for readers to tell you what finished (or nearly finished) but unreleased games they would like to see get a proper release? Surely there are plenty out there?

Danielle Donovan, Co. Tyrone

CU Amiga reserves the right to edit letters so that they make sense, fit onto the page and don't ramble on too much. So make it easier for us and don't go on and on and on and on and on and on.... Thanks.



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Points of View



Time for a few more opinions... please note that the views expressed here are not necessarily those of CU Amiga.

On a knife edge



"Bad news guys: hold onto your cash now, and the great things will fail due to lack of development capital."

The products we have in for review this month are some of the best we have ever had.

The Blizzard PPC card is sitting in one corner and is smoking all that we throw at it. I'm writing this on WordWorth 7, the zenith of Amiga word processors. I've been playing with Elastic Dreams, Art Studio and Picture Manager Pro, I've been blown away by TurboPrint 6 and I can't stop playing Quake and Doom. We've been hearing for a while now about the Great Amiga Revival, surely this is it?

Not necessarily. Gordon Harwood's don't seem to think so. they've left the Amiga market. Vulcan have reigned back their Amiga development and (reluctantly) chosen to move some of their resources to developing for the PC/Playstation market. Any number of developments have taken longer than people were hoping – from the delays in the Inside Out until enough people pre-order, to the prevarication from NewTek over supporting the Amiga. The latest ABC figures here in the UK indicated that the Amiga user base shrunk by another 15% in the last 6 months.

Two very different pictures of the state of the Amiga market. Why the diverse views? The answer is simple. The people who make up the Amiga market – the developers, engineers, coders, distributors and retailers – recognise that the only way the market is going to recover is by supplying the best products possible. The problem is, it won't happen unless *all* of the Amiga community plays ball.

Perhaps seeing all these great products makes people think that the market is in a healthier state than it is. The truth is that the Amiga market is still on a knife edge. The only real difference between now and 18 months ago is that if we fall the right side of the knife, everything is in place for a very rosy future indeed. I guess there are just too many people holding onto their cash, confident that great things are just around the corner. Bad news guys: if you hold onto your cash now, the great things will fail due to lack of development capital.

The great Amiga revival is in your hands. The companies have done their bit, and now it's time to do yours. That means invest something. I'm not suggesting the Amiga market is a charity, don't buy something you don't want or need. Just look through the pages of CU Amiga over the last few issues – I challenge anyone to tell me there isn't a product there they would love to have. So buy it – and from a shop, not from a guy at the local Amiga club with a CD burner.

Buy just one thing – be it a single CD or a PPC card – in the next few months and if all the other readers follow your lead, the Great Amiga Revival is assured. ■

Andrew Korn, Deputy Editor of CU Amiga

Spreading the word



"I know what I'm talking about, and there is no way you can convince me that Windows 95 is any good."

Here I am, well into my second week of work at CU Amiga. When I let friends and colleagues know that I had got a new job writing for an Amiga magazine, the standard reply was, "They don't still make Amigas, do they?"

My answer, of course, was a qualified "yes", but this neatly sums up one of Amiga International's problems: the public's lack of knowledge of the continuining existence of the Amiga.

To take another example, about six months ago my parents wished to buy a new computer. Now, my parents are relative novices when it comes to computers, so, unfortunately, the only sane and reasonable advice I could give was to buy a PC.

We duly trotted off to our local branch of Curry's to see what deals could be done. I got into conversation with a salesperson there, and he asked me if I knew anything about computers. "Yes", I replied, not wishing to blow my own trumpet. "What have you got?" he asked. "I mainly use an Amiga", was my defiant response. His following dismissive comments manifested his ignorance and annoyed me unutterably. What was this spotty kid trying to tell me? The ensuing diatribe I poured forth concerning my greater knowledge, my wider experience of operating systems, and the benefits of using an Amiga shocked the poor fellow, I'm sure. "I know what I'm talking about, and there is no way you can convince me that Windows 95 is any good."

How, then, is AI to raise the Amiga's profile in the eyes of the public? A large and expensive advertising campaign is one obvious solution – but perhaps not one that AI can viably pursue: their precious funds are more desperately required to achieve that much-needed OS overhaul. The conventional and cheaper way of promoting the Amiga has always been word of mouth. The faithful follower of the Church of Amiga would dazzle their friends and family with Amiga-performed miracles, converting them to the cause; they would pester and pursue vendors into stocking kosher Amiga products. But more is needed. A cheap, one-off-fee form of advertising would be for AI to produce or license official T-shirts, posters, car stickers, coffee mugs, whatever, all emblazoned with the Amiga logo. The devoted would proudly display these to the world to get the message across. Also, what about Amiga-branded keyboards instead of PC keyboards to connect to our beloved machines and how about some badges to identify all those anonymous looking tower cases.

All we Amiga users wish to proclaim "Back for the future" from the rooftops of the world. Amiga International, please help us to do so. ■

Richard Drummond, Staff Writer of CU Amiga

What exactly is an Amiga?

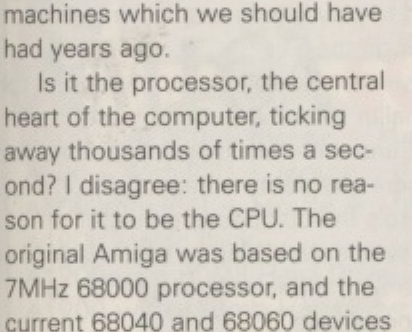


Not so long ago I wrote a piece in this very magazine on how a new Amiga might take the form of a set-top box running WindowsCE, and boy, did I get in trouble for it. Before you burn me at the stake for heresy of the highest order, have a read of what follows and have a think.

So what makes an Amiga an Amiga? Let's look at the options. You could start off by saying it's simple: it's a computer with two Amiga-keys on the keyboard. Good try, but many DIY Amiga tower owners have PC keyboards with no sign of the funny A-keys.

Is it the motherboard design? Clearly not: there are at least two new motherboards in existence, neither designed by Commodore or any Amiga owner – and yet the computers based on them are clearly still Amigas. If anything these designs improve upon the A1200 and A4000, and are the machines which we should have had years ago.

Is it the processor, the central heart of the computer, ticking away thousands of times a second? I disagree: there is no reason for it to be the CPU. The original Amiga was based on the 7MHz 68000 processor, and the current 68040 and 68060 devices are almost entirely different. They are faster by an order of magnitude, more power efficient and use a totally changed internal architecture. The push is on to move to PowerPC, and again, the state-of-the-art PowerPC has little in common with the original 68000. Then there are the UAE and Amiga Forever packages. These allow PCs and other computers to emulate an Amiga computer and run Workbench. On a fast PC it's even possible to run some games, because the emulator can mimic the Amiga custom chipset. With a PC running UAE, it is effectively an Amiga.



▲ Emulation: sincere flattery.

"The Amiga as we know it may be dying, or even dead. But the Amiga attitude isn't."



▲ Is it the applications that make the Amiga?

OK then, you say, now you mention it, what about the custom chip set? It set the Amiga apart from the AtariST. It has the Blitter and Copper for which the Amiga is famous. With the Amiga's unrivalled TV and video friendly visual output, is this the distillation of Amiga-ness?

Well, no, it's not – stick a graphics card in an Amiga equipped with a suitable Zorro slot and you can do without the blitter, HAM mode, dual-playfields, hardware scrolling and sprites. Instead you have a rock steady, 1024 by 768 (or larger) 24bit display on a PC standard SVGA monitor and yet the computer is still clearly an Amiga except now you can run Photogenics like you've never seen it before using CyberGFX drivers.

"A computer running pOS is still going to be an Amiga, isn't it? What about an Amiga running a Linux port?"

So, you say, it has to be the operating system. The Amiga's Workbench is unique, and it's taken the PC world years to catch up. In fact, you may say the Amiga is still ahead of Windows95, faster and more reliable. That's fine: but if the Amiga Workbench is so great, why develop replacements such as pOS? A computer running pOS is still going to be an Amiga, isn't it? What about an Amiga running a Linux port? OK, you say, getting desperate. It's the software. The excellent Amiga application software. Products like Imagine, LightWave, Final Writer and Wordworth. It's the applications which make the Amiga what it is – graphical masterpieces, used in the TV and movies and easy-to-use word processors which don't cost hundreds of pounds and take up 100Mb of disk space. Ah, I say, but you can buy all those packages for the PC. Running Imagine on a PC doesn't make it into an Amiga, does it? Of course there are double-standards are work, I'll freely admit it. Load up ShapeShifter or Fusion on an Amiga, and it looks like a Mac. However, we all know it's still an Amiga. Likewise although PC Task is running, it's not lost its Amiga-ness.

However, that doesn't alter the fact that maybe you're stumped by this stage. You might be asking exactly what is an Amiga, and more importantly, what is it going to evolve into? How is it going to remain an Amiga after everyone has had their own attempt at "improving" it?

This is exactly my point. The Amiga isn't a schematic diagram on an engineer's wall. It's not a piece of clever hardware, or a particular graphical user interface. It's not the Copper, it's not Motorola processors. It's not a specific software application.

The Amiga is an attitude. It's an attitude which says computers don't have to be large clunky things. Computers can be cool. They can be well designed, efficient and powerful. They can be used by everyone, and you don't need to spend a fortune on software or development tools in order to do it. They aren't an end in themselves, they are a way of achieving something.

The Amiga as we know it may be dying, or even dead. But the Amiga attitude isn't. It's sending thousands and thousands of users into the world. Users who expect a certain style and quality. Users who may be using and programming other computers, creating the software we'll all be using tomorrow. Users equipped with the Amiga Attitude. It's this legacy which the Amiga should be remembered for.

Some users will build new hardware, and call it an Amiga. That's fine – but the most important thing about the Amiga is the way it makes you feel, and how it makes you think. ■

John Kennedy, Technical Consultant to CU Amiga

TECHNO TRAGEDIES

The Sam Coupé



The curse of downward compatibility spells the end of the British home computer revolution.

Born 1989

Died 1991

The year is 1989, and the home computer market is undergoing another revolution. The age of the British home computer looks like it is coming to an end, as the fantastically popular Sinclair ZX Spectrum starts to look distinctly under-powered beside the new wave of American computers from companies such as Atari and Commodore. The way forward is clearly 16 bit, and both the ST and Amiga have Motorola processors and custom hardware providing power and graphics unlike anything ever been seen before.

Now, imagine you are a British hardware manufacturer and you are keen to get a slice of the action. What sort of new home computer should you launch? A brand new, 16 bit state-of-the art machine? Ideally yes, but it takes a large amount of money to push a new platform and make it successful – new games aren't going to spring up overnight. What about a computer with the power of a 16 bit machine, but one which is still compatible with the current top dog, the ZX Spectrum? That way you get all the existing software and can still encourage development to take advantage of the new features. Does that sound like a winning idea?

A company called Miles Gordon Technology certainly thought it was. Makers of add-on disk drives for the Spectrum, MGT designed and launched the Sam Coupe computer in the hope of finding the natural machine for upgrading Spectrum owners. One of the most important features of the Sam was a loveable cartoon character which appeared in adverts and documentation. In fact, MGT tried their very best to make the documentation something really special and you would have to look extremely hard to find more user-friendly manuals anywhere in the computer industry.

The Sam Coupe hardware itself was also relatively exciting. Remember that most of the target audience had Spectrums, and so anything with a real keyboard was considered high-tech. So the Coupe had a real keyboard, floating in the middle of a wedge, sitting on a block. Whoops. Yes, it was functional, made of white stuff and it was also one of the ugliest computers ever. Quite what the designers were thinking of is hard to fathom, but looks didn't come into it. One reason was that the base was designed to snap apart and become filled with newfangled devices called "disk drives". Although a cassette tape interface was included as standard, it was possible to fit floppy and even hard disk drives – all without extra pieces of hardware hanging off your desk. A technological miracle at the time.

It got better too: although it still used the old favourite 8 bit Zilog Z80 processor, its speed had been almost doubled to a heart-stopping 6MHz. Audio and graphics were also luxurious, with stereo sound from a genuine sound chip (no simple beeps here) and high-resolution (up to 512 by 192) pixels in up to 128 different colours. At the back were MIDI interfaces, networking connections and even a SCART socket.

The ST and Amiga were clearly the better machines, but they were also extortionately expensive. The Sam on the other hand, was almost cheap and friendly. It was British, it played Spectrum games. It should have been a contender.

What went wrong?

Sadly, from the very beginning. When it was launched, it got off to a bad start by missing the crucial Christmas market and suffering from a lack of a decent advertising campaign.

It may have been aimed at Spectrum owners looking to upgrade, but many potential customers didn't think it offered enough in the way of new features to make it worthwhile. The non-Spectrum magazines of the time almost completely ignored it, concentrating on the new 16 bit machines on the horizon. The Spectrum compatibility was really a double-edged sword: it may run old software, but didn't that make it old hardware? Why spend money on something which doesn't do much more than the Spectrum?

MGT soon got suffered financial bother, and went into liquidation. Even the creation of a new parent company, SAM Computer Company, by the original design duo of Alan Miles and Bruce Gordon, failed to succeed. I remember walking around a computer show and bumping into the Sam stand: even the temptation of a £5000 programming competition prevented me from leaving with a Coupe under my arm. It's much better to wait for the Amiga and ST to drop down in price, I thought.

The next year, that's exactly what the Amiga and ST did. Suddenly home computers had graphical user interfaces, hardware sprites and could ray-trace and play flight simulators simultaneously. The Sam Coupe was locked into 1980's technology, and the 1980's were over.

That's not to say no-one bought it. The estimated number of Coupes sold is placed at 12,000. However, new software was almost impossible to find as none of the big software houses wanted to continue developing for 8 bit hardware. It was the "No software, no reason to buy hardware, no hardware to develop software for" vicious circle which the Sam had been designed to break. It came so close, but it just didn't make it. It turned out that Spectrum owners didn't want to keep their old software: they wanted new software running on brand new hardware. Then wanted to play Falcon on the Amiga, and Space Harrier on the ST.

These days there is still plenty of support for the Sam. Smaller sales have made the Cult of Sam smaller, and therefore more obsessive than most, and there are plenty of resources on the Internet. There's the ubiquitous emulator of course, and even a Web Ring to keep track of all the sites. The Sam offers little of interest to today's computer fans.

If you do ever happen to bump into one, make sure to annoy them by asking whatever happened to the "super Spectrum". They hate it when you call it that. ■

John Kennedy

Web resources

http://www.yi.com/home/TeareJohnna/sam2sam.htm
http://www.ace.mdx.ac.uk/hyperhomes/houses/steven/samco.htm
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